

NEXUS

NEW TIMES MAGAZINE

Volume 10, Number 3 APRIL – MAY 2003

UK/Europe Edition www.nexusmagazine.com

CONTENTS

LETTERS TO THE EDITOR.....	4	TIME, GRAVITY & ALIEN TECHNOLOGY.....	49
GLOBAL NEWS.....	6	<i>A talk by Wilbert B. Smith. This Canadian radio engineer, who died in 1962, has expanded our understanding of time travel, UFO technology and the gravitational effects of nuclear detonations.</i>	
<i>News you may have missed, including a Florida court ruling that the media can legally lie, UK government cover-ups over Bank of England fraud, and leaked documents on Europe's GATS stance.</i>		SECRETS OF THE NEVADA TEST SITE & AREA 51.....	55
THE HIDDEN FACE OF TERRORISM.....	11	<i>A talk by "V. L.". An unidentified physicist, who claims he worked at the Nevada Test Site and Area 51 for twelve years, made startling admissions in 1995 about nuclear testing, antigravity aeronautics, neutron bombs and nuclear terrorism.</i>	
<i>By Paul David Collins. Terrorism is not born by accident but emerges, as did al-Qa'ida, as a result of covert state funding and sponsorship designed to serve the vested interests of powerful elite factions.</i>		THE TWILIGHT ZONE.....	61
ROCKEFELLER INTERNATIONALISM—Part 1.....	19	<i>By Michael E. Salla, PhD. This exopolitical view on the US-led pre-emptive war on Iraq suggests a hidden agenda beyond even the battle for oil: control of a "Stargate" to the ancient Anunnaki gods.</i>	
<i>By Will Banyan. The Rockefellers were famous for their fortune and philanthropy until strategist Raymond Fosdick persuaded JDR Junior to adopt a liberal-internationalist New World Order creed.</i>		REVIEWS—Books.....	65
MANGANESE, INFRASOUND & BSE/CJD—Part 1.....	25	<i>"The Galaxy on Earth" by Richard Leviton</i>	
<i>By Mark Purdey. The rising incidence of prion diseases like BSE and vCJD in particular regions is linked with high manganese/low copper levels and infrasonic shock-bursts in the environment.</i>		<i>"Nostradamus and the Lost Templar Legacy" by Rudy Cambier</i>	
IS INCANDESCENT LIGHT HEALTHIER?—Part 1.....	35	<i>"The Bush Dyslexicon" by Mark Crispin Miller</i>	
<i>By Inger Lorelei. Anecdotal reports and indirect scientific evidence suggest that incandescent light sources are better and healthier than fluorescent.</i>		<i>"Hitler's Flying Saucers" by Henry Stevens</i>	
SCIENCE NEWS.....	41	<i>"The Scientist, The Madman, The Thief & Their Lightbulb" by K. Tutt</i>	
<i>By Richard Alan Miller and Iona Miller. Our brain waves share and are attuned to certain frequencies of the Schumann's resonances, the ELF signals that pulsate between the Earth's crust and ionosphere.</i>		<i>"Lost Secrets of the Sacred Ark" by Laurence Gardner</i>	
		<i>"Fences and Windows" by Naomi Klein</i>	
		<i>"The Templars' Legacy in Montréal..." by Francine Bernier</i>	
		<i>"Our Health At Risk" by Dr Janice-Ann Priest</i>	
		<i>"Medicine Man" by Jack Temple</i>	
		<i>"Awakening: How ET Contact Can Transform..." by Mary Rodwell</i>	
		<i>"The Celestial Clock" by Dr William A. Gaspar</i>	
		<i>"Planets, Sunspots and Earthquakes" by Frank Glasby</i>	
		<i>"Planet-X, Comets & Earth Changes" by James M. McCanney</i>	
		REVIEWS—Videos.....	72
		<i>"The Forgotten Story of Royal R. Rife" by Shawn Montgomery</i>	
		<i>"Crop Circles: A Silent Knowing" by Nikola Duper</i>	
		REVIEWS—Music.....	73
		<i>"Spice Groove" by various artists</i>	
		<i>"Kin Kin" by Ross Daly & Friends</i>	
		<i>"Breathing Space" by Jeff Clarkson</i>	
		<i>"An Afro-Portuguese Odyssey" by various artists</i>	
		<i>"Rhythms of Baghdad" by Ahmed Mukhtar & Sattar Al-Saadi</i>	
		NEXUS BOOKS, VIDEOS, ADS, SUBS.....	80-88

NEXUS MAGAZINE

Volume 10, Number 3

APRIL – MAY 2003

PUBLISHED BY

NEXUS Magazine Pty Ltd, Australia

EDITOR

Duncan M. Roads

CO-EDITOR

Catherine Simons

ASSISTANT EDITOR/SUB-EDITOR

Ruth Parnell

EDITORS' ASSISTANT

Jenny Hawke

UK Office Manager

Marcus Allen

CONTRIBUTORS THIS ISSUE

Paul David Collins; Will Banyan;

Mark Purdey; Inger Lorelei;

Richard Alan Miller and Iona Miller;

Michael E. Salla, PhD

CARTOONS

Phil Somerville

COVER GRAPHIC

John Cook, jscook@ozienet.net

PRINTING

Goodhed Print Group, Bicester, Oxon., UK

DISTRIBUTION

Seymours, London, UK

UK OFFICE - 55 Queens Rd, East Grinstead,
West Sussex, RH19 1BG.

Ph: 01342 322854; Fax: 01342 324574

e-mail address: nexus@ukoffice.u-net.com

Website: www.nexusmagazine.com

EUROPE OFFICE - PO Box 48, 1600 AA
Enkhuizen, The Netherlands.

Ph: +31 (0)228 324076; Fax: +31 (0)228 312081

e-mail address: nexus@fsf.nl

HEAD OFFICE - Articles, Reviews, etc.

PO Box 30, Mapleton, Qld 4560, Australia.

Ph: +61 7 5442 9280; Fax: +61 7 5442 9381

e-mail address: editor@nexusmagazine.com

ITALY OFFICE - c/- Avalon Edizioni, Piazza
Mazzini 52, 35137 Padova, Italy

Ph/Fax: +39 (0)49 912 6006

e-mail address: info@nexusitalia.com

USA OFFICE - 2940 E. Colfax, #131,
Denver CO 80206 USA

Tel: 303 321 5006; Fax: 720 941 9352

E-mail: nexususa@earthlink.net

STATEMENT OF PURPOSE

NEXUS recognises that humanity is undergoing a massive transformation. With this in mind, NEXUS seeks to provide 'hard-to-get' information so as to assist people through these changes. NEXUS is not linked to any religious, philosophical or political ideology or organisation.

PERMISSION-TO-REPRODUCE POLICY

While reproduction and dissemination of the information in NEXUS is actively encouraged, anyone caught making a buck out of it, without our express permission, will be in trouble when we catch them!

Editorial

There is nothing so frustrating as writing an editorial speculating on what the outcome of an event due to occur "any day now" may be. It seems to me that I've been spending far too much time pondering hidden agendas of looming wars, dates and triggers of economic crashes, and trajectories of cosmic bodies. But to be fair, there are valid grounds for speculating on all the above.

One of my pet areas of research is the subject of state-sponsored terrorism. I have read of many examples of radical and extremist groups being created by various intelligence agencies to be used as "assets". The UK, Canada, New Zealand and Australia have all had cases where law-enforcement or intelligence agency factions have been the ones who deliberately created extreme political groups in their own countries! Many researchers in this field insist that *all* "terrorist" groups are state sponsored. Killing one's own citizens to secure or expand power both domestically and internationally goes back at least to Roman times. Now, only the scale and scope are new. Those in the "trade" call it "the ends justifying the means". The rest of us call it state-sponsored terrorism, and it is the subject of our opening article this issue.

I know many experienced and qualified researchers who insist that a particular American intelligence agency controls al-Qa'ida. It is the age-old trick of a street gang controlling a hit-man or thug who beats up anyone he's told to by the gangleader. On the street it is shopkeepers and petty criminals who are "stood over". In the greater reality of the geopolitical chessboard, al-Qa'ida members are the Bush faction's private thugs who act on demand. So were the terrorist attacks of September 11 state sponsored? More and more people now think so.

While on conspiracies and conspirators, it's hard to go past the Rockefeller's. This edition we publish the first in a series of articles on this powerful family. The history of their New World Order visions is extremely relevant for today.

I get many calls and emails asking about brain waves, brain frequencies, Schumann's resonances and, above all, which brain/mind machines I recommend and why. The article this issue on the Schumann's resonances gives readers a clear overview of what is going on, inside and outside the brain. Alpha waves, HAARP, ELF, brain-wave entrainment—it's all there in one digestible mental meal for your enlightenment.

Wilbert Smith's story is one I have looked forward to running for quite a while, and this is the transcript of a very interesting talk he gave decades ago. Smith was a top Canadian government scientist who, using his official and professional contacts, conducted a four-year investigation into "flying saucers", as they were then termed. His findings were probably too fantastic to be taken seriously at the time, but, in light of modern developments, they contain much that's of interest for today's frontier researchers.

Just when you think we've run out of Area 51 whistleblowers to feature, we find another one! This testimony, from a transcript of a talk given a few years ago, is from an anonymous Nevada Test Site/Area 51 physicist, and we decided to publish it even though we have no contact details for follow-up. However, the testimony is most thought-provoking and alarming—especially if you live in certain parts of the USA.

If you work or live with fluorescent lighting, you will certainly want to read about artificial light sources and their effects on human health. You'll go incandescent! I cannot recommend enough that readers become more informed about all sources of vibrational health effects.

And speaking of vibrations, UK farmer Mark Purdey writes about the infrasonic shock trigger for mad cow disease (BSE) and vCJD, the other factor being high manganese/low copper levels in the environment and body. I feel sure that Mark's findings will lead to an understanding of the origins of many other diseases as well as BSE and vCJD.

I go to sign off this editorial yet again, looking at the immediate possibility that my country will go all the way with the USA and others and attack/invoke another sovereign nation. I believe we are being lied to over the assessment of the Iraqi threat, and I feel ashamed at the actions of our leaders in pursuing the path to war. The fact that the world's biggest media moguls have thrown their combined might behind the pro-war lobby means that truth and integrity in journalistic reporting have been replaced by falsehood and fear. Hardly anyone in power now dares to stand up and point out that the Emperor is wearing no clothes.

Duncan

PS: UK readers may want to help us expand the number of shops selling NEXUS, by visiting your local newsagent and asking them to stock it. It is a constant struggle to keep shops re-ordering NEXUS, due to the peculiarities of the British distribution system. Some don't get resupplied even when they have sold out. Consumer power is stonger than publisher power!

WARRANTY AND INDEMNITY

Advertisers upon and by lodging material with the Publisher for publication or authorising or approving of the publication of any material INDEMNIFY the Publisher and its servants and agents against all liability claims or proceedings whatsoever arising from the publication and without limiting the generality of the foregoing to indemnify each of them in relation to defamation, slander of title, breach of copyright, infringement of trademarks or names of publication titles, unfair competition or trade practices, royalties or violation of rights or privacy AND WARRANT that the material complies with all relevant laws and regulations and that its publication will not give rise to any rights against or liabilities in the Publisher, its servants or agents and in particular that nothing therein is capable of being misleading or deceptive or otherwise in breach of the Part V of the Trade Practices Act 1974. All expressions of opinion are published on the basis that they are not to be regarded as expressing the opinion of the Publisher or its servants or agents. Editorial advice is not specific and readers are advised to seek professional help for individual problems.

© NEXUS New Times 2003

Letters to the Editor ...

Origins of Mad Cow Disease

Dear Editor: Peter Olson (Letters, 10/01) should read my actual science journal publications before he embarks upon his misappropriated, inaccurate and ironic critique of my work.

I have published my environmental and laboratory data widely in the scientific literature, and the overall thesis clearly infers that the basis of prion disease pathogenesis pivots upon the loss of copper from the prion protein copper bonds, followed by a replacement with certain rogue metals, such as manganese, lithium or *silver*, which can opportunistically substitute themselves at the vacated domain. These metal disturbances can all be related back to various environmental influences.

Once established, these foreign metals may not act in the overall best interests of the organism. For instance, whilst the normal copper prion protein performs a role in the conduction of electro-energy along the circadian pathways of the brain, the abnormal manganese prion protein will absorb and store up incoming electro-energy, acting much like a battery on continuous charge. In this respect, any alien metal substitution on the prion protein bonds serves to block the flow of electromagnetic energy around the circadian pathways.

But Mr Olson seems to misconceive the key tenets of my hypothesis. In this respect, his letter ironically offers 'support' for my theory and *not* the 'opposition' that he is trying so hard to conjure up. For instance, he repeatedly recounts a series of unbelievable experimental protocols where women have had their brains implanted with sterilised silver wire, who have later gone on to develop CJD! Assuming that these experiments actually took place, then, according to my theory, CJD was clearly caused by the *silver* ions bonding to the copper-depleted ligands on the prion proteins.

The 'copper depletion' prerequisite could have happened months, if not years, before the silver wire was actually implanted in these unfortunate women.

Copper depletion represents the 'cornerstone' prerequisite that sets up 'susceptibility' for prion disease. It can be generated genetically via the inheritance of a type of prion protein that can only bind onto two copper atoms instead of the usual five, as is the case in the familial forms of prion disease; or it can be generated geochemically via straightforward copper deficiency derived from the external ecosystem, as is the case with the traditional forms of sporadic prion disease which have been around for light years; or it can be generated artificially as an extreme form of acute copper 'lock-up' following exposure to synthetic copper-chelating organic chemicals, such as the systemic organo dithiophosphate (OP) warble fly insecticides, as is the case with the modern aggressive forms of new variant prion diseases such as vCJD, BSE, etc.

I have asked Mr Olson for the sources of reference which stand up his case histories of 'silver wire-induced CJD', but he has not provided these to date. He has also failed to provide the references in support of his claims over experiments which have demonstrated that prion disease can be transmitted by blood-sucking insects—that notion is still only at the hypothetical stage! Nor has he produced evidence of any real quotes or statements made by myself which support his bogus claims that "Purdy [spelled wrongly!] looks at the insecticide used on those insects, without ever looking at the insects themselves as the mode of transmission". Could Olson please inform me of his sources for this phony quotation?

Your readers may be interested to know that my field and lab data have shown that an additional quantum facet needs to be fulfilled before the rogue metal cation (manganese or silver, etc.) is primed to serve as the fully fledged 'infectious' agent in prion diseases. The atoms of the metal need to be metamorphosed by the intensive 'shock' energy of low-frequency infrasound. A phonon-oxygen atomic bonding occurs, to the extent that the

metal transmutes from a paramagnetic to ferrimagnetic form. The resulting ferrimagnetic metal acquires its pathogenic capacity the moment the contaminated individual enters an external electromagnetic field, whereby the metal gets permanently charged up to the explosive flashpoint and self-perpetuating cluster bombs of free-radical-mediated neurodegeneration burst forth. Prion disease ensues.

This explains why the infectious agent in prion disease, e.g., a ferrimagnetic metal species, etc., has baffled everybody by retaining its 'infectious' capacity after being heated up to temperatures beyond 500 degrees, i.e., by its being heating up until the specific curie point of the metal is exceeded, whence its magnetic charge, i.e., its pathogenic capacity, is instantly drained.

In this respect, prion disease will develop in the manganese (or silver, etc.)-loaded/copper-depleted brain that can no longer cushion the neurotoxic impact of low-frequency infrasonic shock, e.g. from military jets, the *Concorde*, missile/quarry explosions, earthquakes and volcanic eruptions, etc. This explains why the clusters of prion disease have invariably erupted in any infrasound-intense environment where manganese pollution is also a concurrent problem.

Best wishes,

Mark Purdey, High Barn Farm, Elworthy, Taunton, Somerset TA43PX, UK, website <http://www.markpurdey.com>

[Note: See part one of Mark Purdey's article this issue. Ed.]

Toxic Anti-AIDS Drugs

Dear NEXUS Magazine: I recently did a cable television interview with a top toxicologist/pathologist, Dr Mohammed Ali Al-Bayati (www.toxihealth.com), whose own research, *Get All the Facts: HIV Does NOT Cause AIDS*, using differential diagnosis, reports how dangerous AIDS drugs are and how they cause AIDS illnesses including facial wasting, diarrhoea, night sweats, organ failure, crix belly (named after

the AIDS drug Crixivan) and eventual death. Dr Al-Bayati goes into detail, step by step, and explains how these medications destroy the bone marrow, ultimately destroying and decreasing the body's white cells, platelets and red cells. All of this leads to a weakened immune system, allowing various illnesses to ravage the body.

I have also finished reading an article in San Francisco's gay newspaper, the *Bay Area Reporter*, concerning the approval of the new Orasure "rapid test". According to this article this test is 99.6% accurate and tests for antibodies to HIV.

This is disconcerting to me because the test actually tests 99.6% accurate to proteins "thought to be related" to HIV and not the actual virus. These same antibodies to these proteins can be found in over 60 other factors that would cause the Orasure test to produce a positive result, including but not limited to the flu virus, flu vaccination, haemolysed serum, haemophilia, hepatitis B vaccination, herpes simplex 1 and 2, malaria, tetanus vaccination, tuberculosis, etc.

With this in mind, where is the concern about the many false positives resulting from Orasure's HIV tests, which will lead to thousands of people taking extremely toxic and physically deforming AIDS medications? Is this not really misleading the people worldwide concerning what Orasure's HIV product tests for and the accuracy of this test? I wish to thank you for your time concerning this very important matter.

Sincerely,

Steven D. Keller, Host/Producer/Editor, *The Steven Keller Show*, 607 Castro Street, San Francisco, CA 94114, USA

Fuel-Saving Device Mystery

Hi Duncan: A few weeks ago I telephoned you and discussed the situation with Allen Caggiano and his FIVS/fuel-saving device, which was the subject of an article in NEXUS magazine over a year ago [see

... more Letters to the Editor

NB: Please keep letters to approx. 150 to 250 words in length. Ed.

Science News, 9/02].

A number of people, how many we do not know, sent him US\$795 in order to participate in a Beta Testing Program for the unit. The promised units never arrived and finally, after some months, Vic Blizzard, who lives in Queensland, myself and Ian Hacon, whose name and contact details you gave me, sent threatening letters to Allen.

Then suddenly, the "get113to138mpg" Yahoo! groups message was wiped clean and shut down. Within 24 hours, somebody had put up an alternative site, <http://groups.yahoo.com/group/get113to138mpg> NOT/messages. Now, many dissatisfied people are posting messages to this site and a formal complaint has been laid with Chelmsford Police Department and we are all assisting Officer Mike Horan with his enquiries.

Should you wish to follow the course of this investigation, then you may do so via this message site. If anything significant results, I will advise you.

Regards,

John Carter, j_carter38@hotmail.com

[Dear John: I am unhappy to report that I've been contacted by several people around the world who have sent money and have not yet heard back from Allen Caggiano. I hope to find out what has happened and let readers know in due course. Ed.]

TV Live from the Moon

Dear Duncan: I find Mitch Dickson's comments on the equipment available at the time intriguing but not fully informed [Letters, 10/02].

Yes, I agree that the image-sensing part of the camera was a vidicon tube, but there were compact versions of these devices used in closed circuit television (CCT) cameras and transistors were around at the time. In fact, I have a 1965 issue of *Wireless World* in which there is an advert for a commercially available transistorised surplus CCT camera weighing about 4 lb with lenses. Now I'm sure the military (oh, sorry, NASA) of

the 1960s had access to far more sophisticated technology than was commercially available at the time. Also in the issue of *Wireless World* (ad attached) is a Private Mobile Radio made by Pye, again which is fully transistorised.

With regard to the power required to send a signal back from the Moon, a directional antenna or dish was used to focus the energy into a beam. This means that less power can be used than, say, a TV transmitter that is required to cover a large omni-directional area. In fact, the power for the Moon transmissions was probably only in the order of tens of watts, in which case power requirements were not demanding. The bandwidth of 7 MHz is large compared to the UHF bands (~400 MHz), but in the S band (1550–5200 MHz) used on the *Apollo* Moon program, this is not a large part of the band. Details of the *Apollo* lunar antenna and other equipment can be found at <http://www.hq.nasa.gov/office/pao/History/SP-350/ch-12-3.html>, which also gives the camera weight as 25 lb.

I do not doubt that the NASA *Apollo* program went to the Moon—the transmissions were monitored by radio amateurs (<http://www.users.wineasy.se/svengrahn/trackind/Apollo17/APOLLO17.htm>)—but what they saw and discovered on the Moon wasn't fully reported.

To finish with a question: why have we not returned to the Moon in over 25 years, especially now with serious talk of a manned Mars expedition? In the 1960s, there was talk of using the Moon as a staging post to the other planets!

Regards,

Roy Hammond (electronics engineer), West Midlands, UK

Successful Autism Treatment

Greetings, Duncan: Thanks for bringing NEXUS into the public eye. I love the publication, and being a researcher I find there is always so much info to spark the next great exploration. The particular article in last month's mag

(vol. 10, no. 1) about Dr Dan Burisch was absolutely mind-enlightening. Too much to get into now, but did want to express my appreciation.

What I do want to write about is the letter sent by C. Brough of Tasmania, Australia (vol. 10, no. 1); it was entitled "Beware Plastics & Vaccines". At the end of her letter she asked, "Please, is there any NEXUS reader who can give advice in treating autism?"—and I say there is help.

A scientist named Dr Joe Champion from Arizona has treated hundreds of children with autism, and with much success. The treatment is through an organic module attached to a computer that communicates through a visual C+ language. The computer is called ADAM: Aphysical Dimensional Access Manager.

The website, if you want to learn more and contact Dr Champion, is <http://www.adamtechnology.net>. There is much to be learned at the site plus, of course, one may contact Dr Champion for more info.

It is quite amazing the results and letters I read from the ADAM Forum from the mothers themselves. It will bring tears to your eyes. It is with joy that these moms and dads are seeing their children come into normalcy. Dr Champion is a friend of mine and he works with high integrity to help those in need.

Again, thank you for NEXUS!

Blessings in Bliss,

Kris Martin, USA

The Terror in our Midst

The threat of the upcoming Crime of War has jarred some of us to awaken from our state of controlled consciousness. Once this awareness happens, we begin to see what was previously obscured by those who do not want us to know what they are doing. Our mission now is to stay awake, remain vigilant and voice our dissent. The fabric of Democracy is in tatters, but we must hang on to what remains.

The events leading to and in the aftermath of 9-11 have forced me to re-examine the

meaning of terrorism. "Terrorism" is defined as the using of terror-inspiring methods of governing and the use of coercion tactics on a community or nation to push them into submission through extreme fear. I ask this question: what has been the state of mind of the citizens since all these events have unfolded?

The knowledge that we are about to lose our rights and freedoms without our consent is a formidable thought. For decades we have trusted our elected leaders, believing that what they said was right. I believe we have been led by the misguided intentions of those we trusted.

During the State of the Union address, two noticeable icons of fascism flanked both sides of the speaker's podium. This fascist symbol represents the "evil fascist regime" we fought against in World War II. This should trouble us greatly when we see this symbol in our country. Is this an indication of the deceitful planning that is being forced upon us today? Let us not be partners to the Crime of War, but remain peaceful non-combatants.

Our family enjoys reading your magazine.

From a concerned Native American, E. Trudeau, flowingriver@onlink.net

Valuable Articles Expose Hype

Dear Duncan: What a breath of fresh air your magazine brings to a world of bent journalism and unwarranted hype. I would like, in particular, to thank you as editor for including the many valuable articles written by Sherrill Sellman and others like her.

Medicine, and, for that matter, science in general, is in grave crisis while giant corporations are able to call the tune by providing the rapidly diminishing research funding to universities and Crown research establishments. Do keep this valuable information coming.

Sincerely,

Dr Robert Anderson, Member, Union of Concerned Scientists, website <http://www.roberta.nstemp.com/index.html>

PRIVATISING WAR

The UK Ministry of Defence is poised to enter into a welter of partnerships with business, ushering in the most fundamental shake-up of the military for more than 100 years.

Entire training, logistics and supply operations are set to be hived off to big business in the most far-reaching intrusion of the private sector into what was considered the state's preserve.

Most controversially, perhaps, management of the Armed Forces' secret files—which cover Northern Ireland, the Gulf War and a host of sensitive and historic areas—is set to be handed over to a private contractor.

(Source: *The Observer, London, March 2, 2003*)

EARTH'S CORE TO BURN OUT?

Geophysicist J. Marvin Herndon, who heads Transdyne Corporation in San Diego, has set forth the foundations and demonstrated the feasibility of a giant nuclear reactor at the centre of the Earth.

Quoted in a March 3 press release from the journal *Proceedings of the National Academy of Sciences*, Herndon provides the strongest evidence yet and sheds light on a previously unappreciated peril that humanity will ultimately face.

Computer simulations of a nuclear reactor in the Earth's core, conducted at the prestigious Oak Ridge National



Laboratory, reveal evidence in the form of helium fission products, which indicates that the end of the georeactor lifetime may be approaching.

"The Earth's nuclear furnace could die in as little as 100 years or as long as one billion years—the uncertainty is great," said Herndon. He notes that at some yet unknown point in time after the demise of the georeactor, the presumed energy source for the geomagnetic field—the magnetic field—will collapse and, unlike other times in the geological past, this time it will be unable to re-start.

(Source: *PNAS, March 3, 2003, PNASnews@nas.edu, via <http://NuclearPlanet.com>*)

"NEURO-CHIP" READS LIVING NERVE SIGNALS

Researchers in Germany have developed new semiconductor technology that will allow scientists to read and record electrical signals in living nerve cells.

Roland Thewes, senior director in corporate research at Munich-based Infineon, successfully recorded electrical signals in neurons, the specialised cells that make up the nervous system in living organisms and communicate with each other through electrical pulses.

Infineon researchers worked with scientists at the Max Planck Institute, located outside Munich, on the new biosensor chip, dubbed the "Neuro-Chip". About the size of a fingernail, it has 16,000 sensors

that monitor electrical pulses in cells submerged in electrolyte nutrient fluid that coats the semiconductor and keeps the neurons alive. Amplifiers embedded in the circuitry enable each sensor to detect and process the low-voltage signals throughout the different cell layers. The data can then be transmitted to a computer and eventually transformed into a colour picture for analysis.

(Source: *Reuters, February 11, 2003, via <http://www.cnn.com/2003/TECH/ptech/02/11/chips.bioscience.reut/index.html>*)

FLORIDA COURT RULING SAYS MEDIA CAN LEGALLY LIE

On February 14, a Florida Appeals Court ruled that there is absolutely nothing illegal in a major media organisation lying, concealing or distorting information. The court reversed the US\$425,000 jury verdict of 2000 that was in favour of journalist Jane Akre, who charged she was pressured by Fox Television management and lawyers to air what she knew and documented to be false information.

On August 18, 2000, a six-person jury was unanimous in its conclusion that Akre was indeed fired for threatening to report the station's pressure to broadcast what jurors decided was "a false, distorted or slanted" story about the widespread use of Monsanto's rBGH, a genetically engineered growth hormone given to dairy cows. The court did not dispute the heart of Akre's claim, that Fox pressured her to broadcast a false story to protect the broad-



... GLOBAL NEWS ...

caster from having to defend the truth in court as well as suffer the ire of irate advertisers.

Fox argued from the first, and failed on three separate occasions, in front of three different judges, to have the case tossed out on the grounds there is no hard, fast and written rule against deliberate distortion of the news. The attorneys for Fox, owned by media baron Rupert Murdoch, argued that the First Amendment gives broadcasters the right to lie or deliberately distort news reports on the public airwaves.

The Court of Appeals, in its six-page written decision, held that the Federal Communications Commission's position against news distortion is only a "policy", not a promulgated law, rule or regulation.

Fox aired a report after the ruling was handed down, saying that it was "totally vindicated" by the verdict.

(Source: Sierra Times, March 1, 2003, <http://www.sierratimes.com/03/02/28/arpubmg022803.htm>; also see the website <http://www.foxBGHsuit.com>)

FILTERS NEUTRALISE HARMFUL ELECTROPOLLUTION

Electrical "pollution" at the Melrose-Mindoro Elementary School at Mindoro, Wisconsin, has been making staff members ill, according to District Administrator Ron Perry.

Several teachers and other staff members have complained of headaches, fatigue, facial flushing, numbness, sensitivity to light and sound, tingling and loss of taste and smell. But since a contractor has installed electrical filters, the staff's symptoms have gone away.

"I was somewhat sceptical at first, but now I'm convinced because of what the people have said to me," Perry said.

The problem has been with RF (radiofrequency) electromagnetic fields, which are out of balance, sending microwaves into the rooms and through walls, ceilings and people.

Stetzer Electric of Blair had been updating some electrical wiring when they measured the RF waves in the Mindoro school with a "Fluke" meter. The meter showed that there were considerable amounts of electromagnetic energy in each of the rooms, especially in the computer lab, Perry said.

Workers with Stetzer claimed the neutral wires were too small, therefore electricity came back into the buildings to be ground-

ed. By placing electrical filters in every room, the RF waves instantly smoothed out, he said, and the electromagnetic fields were restored to harmonic balance.

(Source: Melrose Chronicle, Wisconsin, USA, February 28, 2003, via <http://www.strayvoltage.org>)

RADIO FREQUENCIES USED TO KILL DESTRUCTIVE PESTS

Although the effectiveness of using radiowaves to kill destructive insects in agricultural products has been known for 70 years, the technique has never been applied on a commercial scale. For several decades, methyl bromide has been a mainstay treatment to kill a wide array of quarantined pests.

A recent cooperative effort by four Agricultural Research Service laboratories and two universities aims to overcome the technical barriers to the use of radiowave heating to control pests on a commercial scale in places such as orchards, packing houses and food plants.

Electromagnetic waves of radio frequency (RF) can make molecules vibrate and heat up, in the same way that microwaves heat food. The trick is to kill pest insects without killing the taste or texture of the food they infest.

At the Kika De La Garza Subtropical Agricultural Research Center in Weslaco, Texas, ARS entomologist Guy J. Hallman is investigating the use of RF treatment of citrus against the Mexican fruit fly.

At the ARS Yakima Agricultural Research Laboratory in Wapato, Washington, entomologist James D.

Hansen plans to "bathe" tubs full of apples and cherries with radiowaves to determine exposure times that will kill codling moth larvae without affecting the fruit's quality.

And at the ARS San Joaquin Valley Agricultural Sciences Center in Parlier, California, entomologist Judy A. Johnson is testing the use of this technology to rid walnuts, almonds, pistachios, figs and raisins of the wiggly larvae of the navel orange worm, Indian meal moth and codling moth.

(Source: Agricultural Research Service, Feb 11, 2003, <http://www.ars.usda.gov/>)

GLOBALISATION CITED AS A THREAT TO US SECURITY

The heads of the main US intelligence agencies warned on February 11 that globalisation, which has been the driving force behind the expansion of the world economy, has become a serious threat to US security.

The Senate intelligence committee was told, in what was a bleak assessment of the threats facing the US, that nuclear proliferation, failing economies, rising anti-Americanism and terrorist-recruiting pose grave dangers.

"Under the right conditions, globalisation can be a very positive force, providing the political, economic and social context for sustained progress," said Vice-Admiral Lowell Jacoby, director of the Pentagon's Defense Intelligence Agency.

"But in those areas unable to exploit these advantages, it can leave large numbers of people seemingly worse off, exacerbate local and regional tensions, increase



the prospects and capabilities for conflict and empower those who would do us harm."

George Tenet, CIA director, said that globalisation had been "a profoundly disruptive force for governments to manage". Arab governments, in particular, he said "are feeling many of globalisation's stresses, especially on the cultural front, without reaping the economic benefits".

(Source: Financial Times, UK, Feb 12, 2003)

UK GOVERNMENT DOSSIER ON IRAQ WAS PLAGIARISED

US Secretary of State Colin Powell, in his presentation to the Security Council on February 5, sought to reinforce his argument by referring to a recently released British report. He said:

"I would call my colleagues' attention to the fine paper that the United Kingdom distributed...which describes in exquisite detail Iraqi deception activities."

Powell was referring to "Iraq: Its Infrastructure of Concealment, Deception and Intimidation", published on January 30, 2003. The Downing Street authors state that they drew "upon a number of sources, including intelligence material", but a close textual analysis suggests they had little access to first-hand intelligence and instead based their work on academic papers. In fact, they plagiarised quite outdated information, which they then selectively distorted, directly cutting and pasting or near-quoting and even replacing particular words to make a claim sound stronger. In many cases they left spelling and grammatical errors in place.

Apart from the obvious criticism that the British government has plagiarised texts without acknowledgement, passing them off as the work of its intelligence services, there are two further serious problems.

Firstly, it indicates that the UK at least really does not have any independent sources of information on Iraq's internal politics: it just draws upon publicly available data. Thus any further claims to information based on "intelligence data" must be treated with even more scepticism.

Secondly, the information presented as being an accurate statement of the current state of Iraq's security organisations may not be anything of the sort. Ibrahim al-Marashi, who was a postgraduate student at the Monterey Institute of International Studies—the real and unwitting author of much of the document—had as his primary source the documents captured in 1991 for the Iraq Research and Documentation Project. As a result, the information presented as relevant is actually 12 years old.

(Source: By Glen Rangwala, February 5, 2003, via <http://www.globalresearch.ca>)

INTERNET IDENTITY NUMBERS

The Australian and United States governments are moving towards the implementation of an international Internet numbering system.

Advocates of the system—known as ENUM—argue it will allow people to use one identifier for many different purposes, including mobile phones, email, instant messaging and faxes. ENUM is designed to accelerate the convergence of the telephone network and the Internet and is

expected to offer a huge boost to online telephony services. ENUM stands for "e164 Number Mapping", where "e164" is the International Telecommunications Union (ITU-T) code for the international telephone address number plan.

When ENUM domains become active, users will be identified by their telephone number including the country code. What this means is that a phone number such as "+46 8 976 1234" would be mapped to the 4.3.2.1.6.7.9.8.6.4.e164.arpa Internet address in a process that is expected to become automated and transparent to the user.

So far, 13 countries that are members of the ITU have signed on to the e164.arpa proposal and are planning trials.

(Source: Optus News, February 14, 2003, <http://www.optusnet.com.au/news/>)

SPIES PROTECTED IN UK BANKING FRAUD LAWSUIT

A mega-scandal much older than Enron or WorldCom is about to shake the British financial establishment. More than a decade after the spectacular collapse of the Bank of Credit and Commerce International (BCCI), its creditors are finally to put the Bank of England in the dock.

BCCI remains the world's biggest-ever banking fraud, and the colour and complexity of the scam is awesome. It laundered drugs money, bribes and dictators' loot, and allowed an endemic culture of fraud to flourish for decades.

The Bank of England was the financial regulator in 1991 when the BCCI crashed with £7 billion of undeclared debts, and has long been accused of turning a blind eye to fraud at the Middle Eastern bank. Now it faces a giant lawsuit brought in London by BCCI's victims, who claim it is guilty of negligence amounting to "misfeasance", or wilful misconduct. BCCI's creditors are claiming up to £1bn in damages and are breaking new ground by challenging the Bank's statutory immunity against being sued.

Then there is the small matter of the role played by Britain's intelligence services, whose relationship with BCCI has long been questioned. Did MI6 use accounts at the secretive bank to pay sources and operatives around the world? Some researchers claim BCCI channelled funds to Mujahideen fighters in the 1980s and, later on, to Osama bin Laden.

Jack Straw, the Foreign Secretary, secured public interest immunity orders last



year to block the disclosure of "sensitive" passages from an unpublished appendix of the Bingham report, which dealt with the security services.

Other material has been kept out of creditors' hands by invoking a statute that also relates to national security. In an extraordinary twist, however, the UK Government is refusing to identify exactly which statute it has invoked. Government lawyers may fear that to identify the statute would effectively reveal the nature of the material they are trying to keep secret.

The BCCI creditors, however, are not satisfied. They believe they are not being given a proper chance to challenge the government's non-disclosure.

(Source: The Observer, January 19, 2003)

BENETTON GIVES HIDDEN MEANING TO TRACKSUITS

The Italian retailer Benetton's imminent introduction of "smart tag" tracking technology into clothing sold in its shops will soon be the largest example of a trend emerging in the retail industry.

Benetton's Sisley line of clothing will soon contain a Philips radiofrequency ID tag that will replace bar codes, which have to be manually scanned. An RFID tag will communicate its location to Benetton's computerised supply chain network, allowing the retailer to learn stock levels at a glance and make restocking decisions quickly, even automatically.

Karsten Ottenberg, senior vice-president of Philips Semiconductors, based in Hamburg, says the smart tags will be imperceptible to the wearer. They will store information on the garment's style, size and colour and its path through the manufacturing and stock chain.

The ID tag—an antenna-bearing chip, smaller than a grain of rice—is embedded in the clothing's label, and any item returned to the store automatically re-enters the inventory. It is only effective when, say, about three feet from a scanner.

While there is no indication Benetton intends to track its customers with the tags, privacy groups are worried that the technology could lend itself to unauthorised customer monitoring.

An RFID tag could be programmed to store information about, say, the person who bought a garment. It could allow a retail chain to take note each time that garment was worn into a store.

(Source: Ananova.com, March 11, 2003, <http://www.ananova.com/news/>)

LEAKED TRADE SECRETS PROVE THREAT TO PUBLIC SERVICES

Secret leaked documents have revealed European demands in the WTO negotiations that have been quietly underway in Geneva since 2000. These documents provide a harsh wake-up call to the world about what is really at stake in these global "commercial" negotiations.

When most people think about trade, they conjure up images of ships ferrying steel beams and sacks of coffee between nations and of agreements about cutting tariffs and quotas on trade in goods. In reality, however, today's "trade agreements", such as the 1994 North American Free Trade Agreement (NAFTA) and the 1995 World Trade Organization (WTO), have little to do with trade. Instead, they focus on granting foreign companies new rights and privileges within the boundaries of other countries. They attempt to constrain federal, state and local regulatory policies and to commodify public services and common resources—such as water—into new tradable units for profit.

The leaked documents reveal negotiations that will expand the scope of the General Agreement on Trade in Services (GATS), one of the 21 pacts enforced by the WTO. The "GATS-2000" talks are promoted by the United States and European nations on behalf of multinational service-sector conglomerates. Up for grabs at the negotiating table is worldwide privatisation and deregulation of public energy and water utilities, postal services, higher education and state alcohol distribution controls; rights for foreign firms to local business loans; elimination of specific state laws about land use, professional licensing and consumer protections; and extreme deregulation of private-sector service industries such as insurance, banking, mutual funds and securities.

Europe's demands of the USA and 108 other WTO signatories provide "smoking gun" evidence, after months of speculation and concern, about how these secretive WTO negotiations threaten essential public services upon which people worldwide rely daily. Think of GATS as a Trojan Horse. Appealingly dubbed a "trade agreement", it actually contains a massive attack on the most basic functions of local and state government. You might ask what the GATS provision creating a new right for corporations to establish a "commercial presence" within another country has to do with cross-border trade. The answer: nothing. The terms allow a foreign firm to set up subsidiaries in other countries or acquire local companies under more favourable terms than their domestic competitors get. For instance, once a service sector is covered under GATS, governments may not limit the number or size of service providers—meaning that applying zoning rules on beachfront development or limits on concessions in national parks to foreign firms would be forbidden. This is why many people consider GATS to be a backdoor attempt to revive the Multilateral Agreement on Investment (MAI), the radical investment pact that was killed by public opposition in 1998.

The GATS not only promotes privatisation of public services, but it makes reversing failed privatisation experiments extremely difficult for national, state and local governments. Under GATS, if cities seek to bring a privately operated utility back into the public realm, they only can do so if their government agrees to compensate all WTO countries for their companies' lost business opportunities. For example, Atlanta just reversed a disastrous water privatisation involving a French company. If the United States agrees to Europe's GATS-2000 demands to subject water to GATS disciplines, such reversals could only occur if compensation was offered not just to that company but to all WTO signatory countries. The secret European document also revealed a demand to include retail electricity services under GATS, meaning that privatisation nightmares like California's energy deregulation would be nearly impossible to fix. GATS also sets strict constraints on government regulation in the services sector—even when those policies treat domestic and foreign services the same. GATS allows federal, state and local regulations to be challenged as barriers to trade if they are not designed in the least trade-restrictive manner.

The leaked EU documents have prompted civil society groups worldwide to call for a moratorium on the "GATS-2000" talks and for a public process involving state and local officials. The clock is ticking.

(Source: By Lori Wallach, Director, Public Citizen's Global Trade Watch, March 6, 2003, <http://www.citizen.org/trade>, via <http://www.guerrillanews.com/globalization/doc1147.html>)

THE HIDDEN FACE OF TERRORISM

Terrorism does not emerge by accident but is usually sponsored by the state to serve the demands of a powerful elite, as can be seen in the creation of Osama bin Laden's al-Qa'ida.

by Paul David Collins © 2002

11 Fair Avenue
Medway, Ohio 45341
USA
Telephone: +1 (937) 849 4514
Email: thefaceunveiled@excite.com

The following is an edited extract from *The Hidden Face of Terrorism: The Dark Side of Social Engineering, From Antiquity to September 11*, by Paul David Collins.

In our modern world, discomforting truths are usually discarded in favour of fictions. One such fiction is the idea that terrorists are disenfranchised dissidents who independently generate the wealth and resources necessary for their heinous acts. Such is the contention of Professor Mark Juergensmeyer. In his article, "Understanding the New Terrorism", he says that modern terrorism "appears pointless since it does not lead directly to any strategic goal" (p. 158).

Juergensmeyer arrives at this conclusion because he restricts his examination to the visible perpetrators, whose motives may be, in fact, irrational. However, he does not examine the patrons of terrorism. Given the exceptional subtlety and discretion of terrorism's shadowy sponsors, Professor Juergensmeyer may just be oblivious to their existence. On the other hand, he could simply be parroting his fellow academicians in order to maintain the status quo.

Whatever the case may be, this contention seems to be the overall view held by the orthodoxy of academia. With such a view vigorously promulgated by the arbiters of the dominant national paradigm, few can recognise those shady individuals who stand to profit from terrorist acts.

To understand terrorism, one must discard the view that arbitrarily characterises it as "a resort to violence or a threat of violence on the part of a group seeking to accomplish a purpose against the opposition of constituted authority" (Adler, Mueller & Laufer, p. 309). Such an impotent notion is predicated upon the hopelessly flawed accidentalist perspective of history. It relegates terrorism, which is the product of conscious effort and design, to the realm of circumstantial spontaneity. In other words, a contrived act suddenly becomes an inexplicable social phenomenon.

In November 1989, Father Ignacio Martín-Baró, a social psychologist, delivered a speech in California on "The Psychological Consequences of Political Terror". In his speech, Martín-Baró gave a much more precise definition of terrorism, one that is ignored only at great peril. Noam Chomsky provides a synopsis of this speech (p. 386):

He [Martín-Baró] stressed several relevant points. First, the most significant form of terrorism, by a large measure, is state terrorism—that is, "terrorizing the whole population through systematic actions carried out by the forces of the state". Second, such terrorism is an essential part of a "government-imposed sociopolitical project" designed for the needs of the privileged.

Disturbing though it may be, Martín-Baró's definition is one validated by history. The majority of terrorism throughout history has found its sponsors in the hallowed halls of officialdom, in the entity known as government. Terrorism is surrogate warfare, a manufactured crisis designed to induce social change. Its combatants consciously or unconsciously wage the war on behalf of higher powers with higher agendas. Whether its adherents are aware of it or not, terrorism always serves the ambitions of another.

In his article, "Fake Terror: The Road to Dictatorship", Michael Rivero states that "It's the oldest trick in the book, dating back to Roman times: creating the enemies you need" (p. 1). The strategy is quite simple: individuals create a crisis so that they can then introduce their desired solution.

Are there recent, modern examples of state-sponsored terrorism? Unfortunately, the answer to that question seems to be "Yes".

Operation Northwoods

The first example is in 1962. The Chairman of the Joint Chiefs of Staff, Lyman L. Lemnitzer, and his fellow JCS members wanted to remove Castro from Cuba. Exactly what interests Lemnitzer and his fellow warhawks represented are unclear. However, one thing is apparent: these military men considered Castro an impediment to be expunged by means of overt war.

According to James Bamford, former Washington investigative producer for ABC, the Joint Chiefs of Staff planned to engineer several terrorist acts to instigate war (p. 82):

According to secret and long-hidden documents obtained for Body of Secrets, the Joint Chiefs of Staff drew up and approved plans for what may be the most corrupt plan ever created by the US government. In the name of anticommunism, they proposed launching a secret and bloody war of terrorism against their own country in order to trick the American public into supporting an ill-conceived war they intended to launch against Cuba.

Codenamed Operation Northwoods, the plan, which had the written approval of the Chairman and every member of the Joint Chiefs of Staff, called for innocent people to be shot on American streets;

for boats carrying refugees fleeing Cuba to be sunk on the high seas; for a wave of violent terrorism to be launched in Washington, DC, Miami and elsewhere.

People would be framed for bombings they did not commit; planes would be hijacked. Using phony evidence, all of it would be blamed on Castro, thus giving Lemnitzer and his cabal the excuse, as well as the public and international backing, they needed to launch their war.

Northwoods even called for the military to turn on itself (p. 84):

Among the actions recommended was "a series of well-coordinated incidents to take place in and around" the US Navy Base at Guantanamo Bay, Cuba. This included dressing "friendly" Cubans in Cuban military uniforms and then have them "start riots near the main gate of the base. Others would pretend to be saboteurs inside the base. Ammunition would be blown up, fires started, aircraft sabotaged, mortars fired at the base with damage to installations".

Operation Northwoods would draw upon history as well, using the 1898 explosion aboard the battleship *Maine* in Havana harbour as inspiration (p. 84):

"We could blow up a US ship in Guantanamo Bay and blame Cuba," they proposed; "casualty lists in US newspapers would cause a helpful wave of national indignation."

The attempt to create a Cuban terrorist threat makes it clear that the US government has no reservations about using state-sponsored terrorism to achieve its ends.

American Imperialism and the Terrorist Threat

However, it is in the Oklahoma City bombing of 1995 that one sees the tangible enactment of modern-day state-sponsored terrorism. Many Americans have been taught that loners Timothy McVeigh and Terry Nichols, fuelled by militia-inspired conspiracy theories and white supremacist propaganda, perpetrated one of the worst terrorist acts in American history all by themselves.

What came out of the Oklahoma City bombing? Former Czechoslovakian Communist Party Secretariat member Jan Kozak's "pressure from above" went to work and passed oppressive legislation: the Antiterrorism and Effective Death Penalty Act of 1996. This Act made no one safer and threw the Fourth Amendment to the

Constitution into the wastebasket. The pincers clamped down a little bit harder on the American people.

Presently, America finds itself in the midst of a tumultuous conflict because of the September 11, 2001, terrorist attacks on the Pentagon and the World Trade Center. This begs the obvious question: was this attack state-sponsored? Remember the earlier contention that the majority of terrorism is state-sponsored. Terrorists just do not have the resources, the money or the expertise without the aid of a government or factions within a government. It is still too early to know all of the facts and details surrounding the events of September 11. However, there is evidence suggesting that the attack was no exception to the rule. The investigation of government complicity begins with an examination of the evidence for government foreknowledge. Warnings were received at the highest levels of government.

These and other eye-opening revelations have many people asking why the US government did not move to stop bin Laden and al-Qa'ida. This question can be answered with a question: why move against bin Laden and al-Qa'ida if they are your assets?

The story of the dreaded al-Qa'ida terrorist network begins with

The story of the dreaded al-Qa'ida terrorist network begins with Zbigniew Brzezinski, President Carter's National Security Advisor.

Zbigniew Brzezinski, President Carter's National Security Advisor. In his 1997 book, *The Grand Chessboard: American Primacy and Geostrategic Objectives*, Brzezinski provides readers with the motivation for the creation of a terrorist threat. He begins (p. xii):

The last decade of the twentieth century has witnessed a tectonic shift in world affairs. For the first time ever, a non-Eurasian power has emerged not only as a key arbiter of Eurasian power relations but also as the world's paramount. The defeat and collapse of the Soviet Union was the final step in the

rapid ascendance of a Western Hemisphere power, the United States, as the sole and, indeed, the first truly global power...

Brzezinski celebrates the fact that America is being transformed into a world empire. However, he identifies a distinct threat to America's ascendancy to the position of sole global power: "The attitude of the American public toward the external projection of American power has been much more ambivalent" (p. 24). Apparently, the citizenry's aversion towards imperialistic policies, which Brzezinski euphemistically interprets as ambivalence, is an obstacle to the empire's expansion. After all, there are still plenty of patriots who understand that Brzezinski's expansionistic "geostrategy" is irreconcilable with the tenets of Americanism.

This sense of awareness has been a major obstacle to the foreign policy elites that Brzezinski represents. Thus far, enough patriots know that none of the "Freedom Documents" (i.e., the Constitution, Bill of Rights, etc.) makes concessions for the arbitrary extension of America's authority through brutish military expeditions. As a sovereign nation itself, America is supposed to honour the autonomy of other countries and is not to initiate militaristic campaigns unless she is threatened. Yet, Brzezinski believes that adherence to such principles could provoke worldwide social upheaval (p. 30):

America's withdrawal from the world, or because of the sudden emergence of a successful rival, would produce massive international instability. It would promote global anarchy.

Brzezinski continues further on in hyperbolic fashion (p. 194):

Without sustained and directed American involvement, before long the forces of global disorder could come to dominate the world scene.

In other words, the promotion and practice of representative government amongst other nations would lead to doomsday itself. In such statements, the former National Security Advisor reveals the authoritarian features of his bizarre eschatology. According to Brzezinski's *Weltanschauung*, those who cherish individual liberties and the sovereignty of their respective nations constitute the "forces of global disorder"; these forces must be defeated or they will invariably cause the apocalypse—so public opinion must be altered. (Brzezinski fails to mention that such a doomsday will only mean the end for him and his elitist comrades.) Brzezinski cites a very interesting historical example (p. 25):

The public supported America's engagement in World War II largely because of the shock effect of the Japanese attack on Pearl Harbor.

Ah, an option presents itself! Mass consensus could be facilitated through mass trauma. In fact, the engineering of widespread compliance is an essential constituent in the implementation of Brzezinski's foreign policy. In an exemplary moment of self-incrimination so endemic to elitist tracts, Brzezinski pens a damning confession (p. 211):

Moreover, as America becomes an increasingly multi-cultural society, it may find it more difficult to fashion a consensus on foreign policy issues, except in the circumstance of a truly massive and widely perceived direct external threat.

A readily exploitable menace, whether genuine or promulgated, is the solution.

Brzezinski began the construction of his "direct external threat" years before he wrote *The Grand Chessboard*. In an interview with the French magazine *Le Nouvel Observateur*, the former national security adviser made a stunning confession that will change the history books forever (Blum, p. 1):

Q: The former director of the CIA, Robert Gates, stated in his memoirs [From the Shadows] that American intelligence services began to aid the Mujahadeen in Afghanistan six months before the Soviet intervention. In this period you were the national security adviser to President Carter. You therefore played a role in this affair. Is that correct?

Brzezinski: Yes. According to the official version of history, CIA aid to the Mujahadeen began during 1980, that is to say, after the Soviet Army invaded Afghanistan, December 24, 1979. But the reality, secretly guarded until now, is completely otherwise. Indeed, it was July 3, 1979, that President Carter signed the first directive for secret aid to the opponents of the pro-Soviet regime in Kabul. And that very day, I wrote a note to the President in which I explained to him that in my opinion this aid was going to induce a Soviet military intervention.

Q: Despite this risk, you were an advocate of this covert action. But perhaps you yourself desired this Soviet entry into war and looked to provoke it?

B: It isn't quite that. We didn't push the Russians to intervene, but we knowingly increased the probability that they would.

Re-education and the Creation of the Taliban

Having encouraged the Soviets to invade Afghanistan, Brzezinski

now had a pretext for radicalising and arming a population that would be used at a future date as a "direct external threat" to the United States.

Part of the radicalisation process included the brainwashing of children under the guise of education. The *Washington Post's* Joe Stephens and David B. Ottaway report (pp. 1–2):

In the twilight of the Cold War, the United States spent millions of dollars to supply Afghan schoolchildren with textbooks filled with violent images and militant Islamic teachings, part of covert attempts to spur resistance to the Soviet occupation.

The "Primers", which were filled with talk of jihad and featured drawings of guns, bullets, soldiers and mines, have served since then as the Afghan school system's core curriculum. Even the Taliban used the American-produced books, though the radical movement scratched out human faces in keeping with its strict fundamentalist code.

Stephens and Ottaway identify the governmental and educational organisations involved in development of the textbooks (p. 4):

Published in the dominant Afghan languages of Dari and Pashtu, the textbooks were developed in the early 1980s under an AID [Agency for International Development] grant to the University of Nebraska–Omaha and its Center for Afghanistan Studies. The agency spent \$51 million on the university's education programs in Afghanistan from 1984 to 1994.

Under this project, the images and talk of violence were craftily intermingled with legitimate education (p. 4):

Children were taught to count with illustrations showing tanks, missiles and land mines, agency officials said. They acknowledged that at the time it also suited US interests to stoke hatred of foreign invaders.

An examination of a textbook produced shocking results (p. 5):

An aid-worker in the region reviewed an unrevised 100-page book and counted 43 pages containing violent images or passages.

The writers of the *Washington Post* story go on to provide a specific example of the material that is nothing less than

appalling (pp. 5–6):

One page from the texts of that period shows a resistance fighter with a bandolier and a Kalashnikov slung from his shoulder. The soldier's head is missing.

Above the soldier is a verse from the Koran. Below is a Pashtu tribute to the mujaheddin [sic], who are described as obedient to Allah. Such men will sacrifice their wealth and life itself to impose Islamic law on the government, the text says.

This social engineering project successfully transformed Muslim children into conscienceless killing machines. Many would go on to join al-Qa'ida, the terrorist network headed up by Osama bin Laden.

An heir to a Saudi construction fortune, bin Laden went to Afghanistan in 1979 to fight the Soviets. Bin Laden eventually came to head the Maktab al-Khidamar, also known as the MAK. It was through this front organisation that money, arms and fighters were supplied to the Afghan war. However, according to MSNBC's Michael Moran, there is more to the story (p. 2):

What the CIA bio conveniently fails to specify (in its unclassified

This social engineering project successfully transformed Muslim children into conscienceless killing machines.

form, at least) is that the MAK was nurtured by Pakistan's state security services, the Inter-Services Intelligence agency, or ISI, the CIA's primary conduit for conducting the covert war against Moscow's occupation.

Even after the war, bin Laden was on good terms with the CIA (p. 3):

Though he has come to represent all that went wrong with the CIA's reckless strategy there, by the end of the Afghan war in 1989, bin Laden was still viewed by the agency as something of a diletante—a rich Saudi boy gone to war and welcomed home by the Saudi monarchy he so hated as something of a hero.

Bin Laden would later receive three necessary provisions from factions of government. These essentials would allow him and al-Qa'ida to conduct one of the worst terrorist attacks ever conceived. These constituents were: (1) protection courtesy of highly influential, well-placed shepherds in government; (2) government funding; and (3) government training. Without a beat, individuals in positions of authority delivered.

Both Democrat and Republican administrations protected bin Laden. Undaunted by Osama's attack on the USS *Cole* and bombings of the embassies, this non-partisan aegis consistently insulated the terrorist and his network. President William Jefferson Clinton, a Democrat, shielded bin Laden and company from the hand of justice in Sudan. Mansoor Ijaz revealed this fact in the December 5, 2001, *Los Angeles Times* (Ijaz, p. 1):

President Clinton and his national security team ignored several opportunities to capture Osama bin Laden and his terrorist associates, including one as late as last year...

From 1996 to 1998, I opened unofficial channels between Sudan and the Clinton Administration. I met with officials in both countries, including Clinton, US National Security Advisor Samuel R. "Sandy" Berger and Sudan's President and intelligence chief.

President Omar Hassan Ahmed Bashir, who wanted terrorism sanctions against Sudan lifted, offered the arrest and extradition of bin Laden and detailed intelligence data about the global networks constructed by Egypt's Islamic Jihad, Iran's Hezbollah and the Palestinian Hamas. Among those in the networks were the two hijackers who piloted commercial airliners into the World Trade Center. The silence of the Clinton Administration in responding to these offers was deafening.

Sudan offered Bill Clinton the ideal opportunity to apprehend bin Laden and prevent future terrorist attacks. Instead, the US pressured Sudan to make bin Laden leave, "despite their [the Sudanese] feeling that he could be monitored better in Sudan than elsewhere" (pp. 1–2). It was off to Afghanistan for bin Laden and his merry, marauding band of cut-throats and murderers (p. 2):

Bin Laden left for Afghanistan, taking with him: Ayman Zawahiri, considered by the US to be the chief planner of the September 11 attacks; Mamdouh Mahmud Salim, who traveled frequently to Germany to obtain electronic equipment for al-Qaeda; Wadih El-Hage, bin Laden's personal secretary and roving emissary, now serving a life sentence in the US for his role in the 1998 US Embassy bombings in Tanzania and Kenya; and Fazul Abdullah Mohammed

and Saif Adel, also accused of carrying out the embassy attacks. Some of these men are now among the FBI's 22 most-wanted terrorists.

In Afghanistan, the Taliban protected bin Laden and his al-Qa'ida network. There is an odd symmetry revealed through this relationship. Both bin Laden and the Taliban were little more than a creation of the CIA. Selig Harrison, a South Asian expert from the Woodrow Wilson International Center for Scholars, made this known at a conference in London. The *Times of India* records Harrison's revelations (p. 1):

LONDON — The Central Intelligence Agency (CIA) worked in tandem with Pakistan to create the "monster" that is today Afghanistan's ruling Taliban, a leading US expert on South Asia said here.

"I warned them that we were creating a monster," Selig Harrison from the Woodrow Wilson International Centre [sic] for Scholars said at the conference here last week on "Terrorism and Regional Security: Managing the Challenges in Asia".

To the average American, the Taliban might have been a rogue gallery of maniacs that comprised a fanatical outlaw government and nothing more. However, Harrison makes it clear that the Taliban was a well-coordinated intelligence project (p. 2):

The Taliban are not just recruits from "madrassas" (Muslim theological schools) but are on the payroll of the ISI (Inter-Services Intelligence, the intelligence wing of the Pakistani government).

A Covert Government Agenda

The government had all the means necessary to detect and prevent the September 11 attacks. Researcher Russ Kick makes a significant statement concerning this point (p. 1):

The US has the Central Intelligence Agency, the Federal Bureau of Investigation, the National Security Agency, the Defense Intelligence Agency, the National Reconnaissance Office, the Secret Service, and a host of other intelligence and security agencies. These agencies employ Echelon, which monitors the majority of electronic communication in the world; Carnivore,

which intercepts email; Tempest, a technology that can read a computer monitor's display from over a block away; Keyhole satellites that have a resolution of four inches; and other spy technologies, probably most of which we don't know about.

In 2001, the US spent \$30 billion on intelligence gathering and an additional \$12 billion on counterterrorism. With all these resources, and more, we're supposed to believe that the government didn't have the slightest inkling that terrorists were planning to attack the United States, much less hijack planes and send them careening into major landmarks.

After reviewing the facts, one must consider a more sinister possibility: that certain factions in the United States government created the bin Laden menace and actually desired the attacks. Whether Moran realises it or not, his article, "Bin Laden Comes Home to Roost", reveals evidence that the Agency may have been equipping bin Laden's network for purposes other than fighting the Soviets (p. 4):

"The Taliban are not just recruits from 'madrassas' (Muslim theological schools) but are on the payroll of the ISI (Inter-Services Intelligence, the intelligence wing of the Pakistani government)."

The CIA, ever mindful of the need to justify its "mission", had conclusive evidence by the mid-1980s of the deepening crisis of infrastructure within the Soviet Union. The CIA, as its deputy director Robert Gates acknowledged under congressional questioning in 1992, had decided to keep that evidence from President Reagan and his top advisors and instead continued to grossly exaggerate Soviet military and technological capabilities in its annual "Soviet Military Power" report right up to 1990.

Now, a troubling question arises. Given the impending collapse of the Soviet Union and the inexorable demise of communism, bin Laden's involvement in the crusade against the Soviets seems inconsequential. More succinctly, it is irrelevant. Yet, despite his axiomatic obsolescence in the anti-communist campaign, bin Laden continued to receive funds. Since such financing did not represent an investment in the ongoing war with the Soviets, there must have been ulterior motives for maintaining bin Laden's network.

What was the true agenda that motivated the CIA to support what would later become an international Frankenstein's monster? Former CIA Associate Deputy Director of Operations Theodore Shackley may have already answered this question in his book, *The Third Option* (p. 17):

Senior intelligence officers like myself, who had experience in paramilitary operations, have always insisted that the United States should also consider the third option: the use of guerrilla warfare, counterinsurgency techniques and covert action to achieve policy goals... Political warfare is very often the stitch in time that eliminates bloodier and more costly alternatives.

It is possible that the September 11 attack represents a tangible enactment of Shackley's third option. Bin Laden's ties to the intelligence community certainly reinforce such a contention. Were al-Qa'ida and bin Laden considered part of a third option to facilitate political and social change in the United States?

Consider a conversation that took place between former DEA agent Michael Levine and a CIA agent. It suggests that the CIA is ready and willing to use the third option in America. This discourse is recorded in *The Triangle of Death* (Levine, p. 353):

"How can you be so good at what you do and have so little understanding of what really pulls your strings? Don't you realize that there are factions in your government that want this to happen—an emergency situation too hot for a constitutional government to handle."

"To what end?" I asked.

"A suspension of the Constitution, of course. The legislation is already in place. All perfectly legal. Check it out yourself. It's called FEMA. Federal Emergency Management Agency. Turn in your guns, you antigovernment rabble-rousers. And who would be king, Michael?"

"CIA," I said.

Terrorism in the United States is one of the methods employed to generate the changes desired by Levine's CIA friend. It has provided a pretext for the introduction of draconian laws and measures previously unthinkable. Representative Henry Gonzalez recognised this fact when he made the following comment (Cuddy, p. 164):

The truth of the matter is that you do have those standby provisions, and the statutory emergency plans are there whereby you could, in the name of stopping terrorism, apprehend, invoke the

military, and arrest Americans and hold them in detention camps.

Add to the list of "statutory emergency plans" the Patriot Act, passed in response to the September 11 attacks. According to *Washington Post* staff writer Jim McGee (pp 1–2), this law:

...empowers the government to shift the primary mission of the FBI from solving crimes to gathering domestic intelligence. In addition, the Treasury Department has been charged with building a financial intelligence-gathering system whose data can be accessed by CIA.

Most significantly, the CIA will have the authority for the first time to influence FBI surveillance operations inside the United States and to obtain evidence gathered by federal grand juries and criminal wiretaps.

The Patriot Act is designed to transform America into a surveillance society. Wiretapping has been expanded to invade the privacy of a larger portion of the populace. In the name of fighting terrorism, the prying eyes of the government can now watch those merely deemed "suspicious". Furthermore, wiretaps are no longer just a tool in criminal investigations. Under the Act, they become a means of gathering information on the citizenry. Unfortunately, the surprises do not stop there. The Act also lifts many of the constraints on the CIA's power. McGee writes (p. 4):

The new law also gives the CIA unprecedented access to the most powerful investigative weapon in the federal law enforcement's arsenal: the federal grand jury. The grand juries have nearly unlimited power to gather evidence in secret, including testimony, wiretap transcripts, phone records, business records or medical records...

The new law permits allow the FBI to give grand jury information to the CIA without a court order, as long as the information concerns foreign intelligence or international terrorism. The information can also be shared widely throughout the national security

establishment...

All of the above points to a very frightening conclusion: there are some factions of government that consider terrorism to be a tool of social engineering. The direction society is being steered by this "tool" is even more frightening.

Terrorism: A Tool of the Ruling Elite

Terrorism is being used to keep the rabble in line on behalf of an elite that wishes to maintain and expand its power. In *The Power Elite*, sociologist C. Wright Mills introduces these powerful individuals (pp. 3–4):

The power elite is composed of men whose positions enable them to transcend the ordinary environments of ordinary men and women; they are in positions to make decisions having major consequences. Whether they do or do not make such decisions is less important than the fact that they do occupy such pivotal positions: their failure to act, their failure to make decisions, is itself an act that is often of greater consequence than the decisions they do make. For they are in command of the major hierarchies and organisations of modern society. They rule the big corporations. They run the machinery of the state and claim its prerogatives. They direct the military establishment. They occupy the strategic command posts of the social structure, in which are now centered the effective means of the power and the wealth and the celebrity which they enjoy.

Terrorism is being used to keep the rabble in line on behalf of an elite that wishes to maintain and expand its power.

Talk of oligarchs might tend to conjure pictures of mediaeval feudal lords. However, a Federal Reserve study points out to elitism being alive, well, and existing in the "Land of the Free", the United States. In his *Secrets of the Temple*, former *Washington Post* editor William Greider quotes the study (p. 39):

...54 percent of the total net financial assets were held by the 2 percent of families with the greatest amount of such assets and 86 percent by the top 10 percent; 55 percent of the families in the sample had zero or negative net worth...

This concentration of wealth in so few hands certainly suggests that there is a ruling class. It is highly naive to believe that this elite does not wield a great deal of influence over civilisation. In her book, *Beyond The Ruling Class: Strategic Elites In Modern Society*, Professor Suzanne Keller states (p. 3):

The notion of a stratum elevated above the mass of men may prompt approval, indifference, or despair, but regardless of how men feel about it, the fact remains that their lives, fortunes, and fate are and have long been dependent on what a small number of men in high places think and do.

Former Director of the Central Intelligence Agency William Colby recognised the existence of a network of bluebloods. When former Nebraska Senator and Vietnam War hero John W. DeCamp was looking into elites' involvement in child abuse, drug running, gun running, and satanic ritual-murder, Colby warned him of the hidden aristocracy and their power (DeCamp, pp. ix-x):

"What you have to understand, John, is that sometimes there are forces and events too big, too powerful, with so much at stake for other people or institutions, that you cannot do anything about them, no matter how evil or wrong they are and no matter how dedicated or sincere you are or how much evidence you have. That is simply one of the hard facts of life you have to face. You have done your part. You have tried to expose the evil and wrongdoing. It has hurt you terribly. But it has not killed you up to this point. I am telling you, get out of this before it does.

"Sometimes things are just too big for us to deal with, and we have to step aside and let history take its course."

Probably the greatest source of "insider" information comes from Oxford professor (and mentor to former President Bill Clinton) the late Carroll Quigley. After being close to the pro-British, Anglophile faction of the elite, Quigley wrote (p. 950):

There does exist, and has existed for a generation, an international Anglophile network which operates, to some extent, in the way the radical Right believes the Communists act. In fact, this network, which we may identify as the Round Table Groups, has no aversion to cooperating with the Communists, or any other groups, and frequently does so. I know of the operations of this network because I have studied it for twenty years and was permitted for two years, in the early 1960s, to examine its papers and secret records. I have no aversion to it and to many of its aims and have, for much of my life, been close to it and to many of its instruments.

I have objected, both in the past and recently, to a few of its policies (notably to its belief that England was an Atlantic rather than a European Power and must be allied, or even federated, with the United States and must remain isolated from Europe), but in general my chief difference of opinion is that it wishes to remain unknown, and I believe its role in history is significant enough to be known.

Quigley also informs us that the ruling class has a very low opinion of the common people. He voices this elitist sentiment when he refers to the commoners as "the petty bourgeoisie..." (pp. 1243-1244).

So why is the great mass of human civilisation unaware of the oligarchs' presence among them? In *The Architecture of Modern Political Power*, Daniel Pouzner explains why (p. 16):

The establishment cloaks itself in cultural camouflage, employing tactics for which it almost seamlessly maintains plausible deniability. Subtle, ubiquitous, often implicit propaganda fosters a broad public acceptance and embrace of the authority of the establishment, and of the establishment's definitions of good and evil, preventing the public from seriously contemplating the reality that the establishment is itself quite often evil by its own definition. The establishment reiterates the mantra that the President of the United States is "the leader of the free world", but a free world has no leader. The President of the United States is simply the most obvious spearhead of the authority of the establishment. He gathers strength at the expense of the world's freedom.

Generally, an errant public attributes the results of the establishment's meddling actions to happenstance, or to motives viewed as essentially innocuous or virtuous. The design is irrefutably evident only in the pattern of results, or by actually showing proof of meddling. The public has been systemically conditioned to ignore such patterns, and to condemn those who draw attention to them (derisively calling them "conspiracy theorists"). Thus, controlling access to and dissemination of information that constitutes proof of meddling suffices in large part to protect the establishment program from exposure. The compartmentalization of the establishment's covert apparatus assures that those exposures which do transpire cause only limited damage.

The connections between the bin Laden and the Bush families do not end with Arbusto Energy.

Bush/Bin Laden Family Links

Are there any ties between the power elites and the current terrorist network? The answer to that question lies with the Bush dynasty. Neither Bush Senior nor Bush Junior can be described as Presidents in the Lincoln tradition. They do not come from lower class backgrounds and modest upbringings. Webster Tarpley and Anton Chaitkin's in-depth investigation of George Senior led them to propose the following in their excellent book, *George Bush: The Unauthorized Biography* (p. 9):

One of our basic theses is that George Bush [Senior] is, and considers himself to be, an oligarch.

In an article for the *London Daily Mail*, Peter Allen points out a connection between George W. Bush and Osama's brother, Salem bin Laden (pp. 1-2):

Incredibly, Salem went on to become a business partner of the man who is leading the hunt for his brother. In the 1970s, he and George W. Bush were founders of the Arbusto Energy oil company in Mr Bush's home state of Texas.

As he built his own business empire, Salem bin Laden had an intriguing relationship with the President-to-be. In 1978, he appointed James Bath, a close friend of Mr Bush who served with him in the Air National Guard, as his representative in Houston, Texas. It was in that year that Mr Bath invested \$50,000... in Mr

Continued on page 74

ROCKEFELLER INTERNATIONALISM

Throughout the 20th century to the present day, the Rockefeller family, via philanthropy and power politics, has been pivotal in the move to create a so-called New World Order.

Part 1 of 6

by Will Banyan © 2002, 2003
(Revised January 2003)

Email: banyan007@rediff.com

THE ROCKEFELLERS' NEW WORLD ORDER VISIONS, 1920–2002

It has long been the conceit of the rich and super-rich that their vast wealth, and the political power it brings, gives them licence to change the world. The House of Rothschild, for example, the world's richest banking dynasty in the 19th century, used its economic leverage and political influence in numerous (though not always successful) attempts to remould Europe's political landscape in an effort to prevent the outbreak of war. This gained the family a reputation in some quarters as "militant pacifists". "[W]hat Rothschild says is decisive," opined one Austrian diplomat, "and he won't give any money for war." The family attitude was best summed up in a statement allegedly made by the wife of the dynasty's founder, Mayer Amschel Rothschild (1744–1812): "It won't come to war; my sons won't provide money for it." Yet the Rothschilds' motives in preventing warfare were hardly benevolent; with the family's power and fortune resting on the stability of the international bond market, avoiding war was a matter of economic survival. "You can't begin to imagine what might happen should we get war, God forbid," lamented one of Mayer Amschel's sons in 1830, "...it would be impossible to sell anything."¹ Such is the banality of greed: good outcomes are acceptable only when they are profitable.

In the past century, however, the rich have become more overt in their efforts; in fact, using their wealth to bring about global changes has been transformed into a noble enterprise—one that usually follows a spiritual epiphany, when the decades of ruthlessly amassing a fortune are followed by a sudden desire to employ for the "common good" rather than self-indulgent material luxuries. The acknowledged pioneer of this approach is Andrew Carnegie (1835–1919), one of the so-called "robber-barons" of the "Gilded Age" in the late 19th century when the US economy was dominated by the "trusts", among them Carnegie Steel. Having sold his company to fellow magnate J. P. Morgan in 1901, Carnegie devoted his remaining years and his fortune to a crusade for world peace.

Now celebrated as the father of philanthropy, Carnegie believed that only the rich minority had proven themselves qualified to change society, so the multitude must be excluded from such decisions. "[W]ealth, passing through the hands of the few," he wrote, "can be made a much more potent force for the elevation of our race than if distributed in small sums to the people themselves."² Similar logic drives many of today's philanthropic social engineers, including Ted Turner, Bill Gates and George Soros, each of whom devotes their billions to "worthy" causes in support of their own particular visions of a "just" global society.

This naturally brings us to the Rockefeller family, which has used its fortune, originally amassed in the 19th century, to establish a philanthropic network that has had a significant influence on government policy throughout the world for nearly a century. This fact has long been recognised by researchers into the "New World Order", who contend that Rockefeller family members are among the key players, if not *the* primary architects and paymasters, behind the alleged secret plot to establish a dictatorial "One World Government". Back in the 1970s, for example, Gary Allen declared in his book, *The Rockefeller File*, that "*the* major Rockefeller goal today is the creation of a 'New World Order'—a one world government that would control all of mankind". Contemporary NWO researchers have been no less certain of Rockefeller culpability. The ever-controversial David Icke describes the Rockefellers as a pivotal family in the "bloodline hierarchy" that is striving to implement the "Brotherhood Agenda" of "centralised control of the planet". Were it not for the Rockefellers and their "manipulation of the United States and the wider world", writes Icke, there would be "far greater freedom" in America and the "world in general".³

That the emerging New World Order is the product of decisions made at the behest of the power-elite, among them the Rockefellers, is not in dispute here, for the evidence is considerable. However, some key issues remain unresolved, with opponents of globalisation divided over whether the NWO stems from a process in which "socialist" supranational institutions are subverting the sovereignty of all nations, including the United States, by stealth, or is in fact a process of US-led transnational "corporate capitalism", with global organisations relegated to a secondary role.⁴

By examining the specific proposals of the Rockefellers, we can see that for the elite architects of the NWO it has *not* been a case of either global institutions or a one-world market, but a careful combination of both approaches, with regional blocs as stepping-stones to the establishment of an authoritarian, market-oriented system of "global governance".⁵

In fact, the Rockefeller family has been at the forefront of efforts to convince, cajole and coordinate governments in support of this project throughout much of the 20th century through to the present day. Indeed, the strategies commonly associated with both the "corporate-led" and "collectivist" models of global governance—i.e., American leadership, the United Nations, free trade, neo-liberalism, international financial institutions, regional free trade blocs, population control, global environmental regulation, Atlantic Union and world federalism—the Rockefellers have supported for nearly a century either directly or through the various elite policy-planning organisations they have funded, founded or controlled.

The purpose of this article is to review the origins and evolution of the internationalist ideology of the Rockefellers, from John D. Rockefeller, Junior, through his most influential sons—John D. III, Nelson, Laurance and David—to their own offspring, covering the period from the 1920s through to the present day.

JOHN D. ROCKEFELLER, JR, AND THE LEGACY OF WOODROW WILSON

The story of the Rockefellers' embrace of internationalism begins not with speculative tales of their "reptilian" origins or with John D. Rockefeller, Senior (1839–1937)—the uncompromising patriarch and founder of Standard Oil, the very basis of the Rockefellers' power—but with John D. Rockefeller, Junior (1874–1960), who controlled the Rockefeller fortune during the first half of the 20th century. This may seem at odds with prevailing orthodoxies and other more entertaining accounts, but the Rockefellers did not subscribe to the globalist ideology until Junior's time.

Despite his numerous trips to Europe and attempts to capture foreign oil markets (resulting in a clash with the Rothschilds at one point), Rockefeller Senior had shown little interest in international affairs. Besides his vast fortune (the equivalent of nearly US\$200 billion in today's terms), Rockefeller's only other enduring legacy to his extended family, and by extension the New World Order, was a philosophy of philanthropy in service of his professed interest in improving humanity.

The basis for Rockefeller Senior's philanthropy, according to Rockefeller biographer Ron Chernow, was his "mystic faith that God had given him money for mankind's benefit". Rockefeller was a devout Baptist, and his religion determined much of his early

philanthropy. He was also influenced by Carnegie's argument that the rich should use their money to dampen social tensions stemming from growing inequality, rather than leave it to their heirs to waste on hedonistic lifestyles. Carnegie wrote in the *North American Review* (June 1889) that "The man who dies thus rich dies disgraced". Inspired by Carnegie's missive, Rockefeller embarked upon a vigorous program of philanthropy, though he avoided direct gifts to the needy. Citing the need to "abolish evils by destroying them at the source", he poured his money into educational institutions, hoping their graduates would "spread their culture far and wide". Rockefeller was unwilling to upset the social hierarchy, subscribing to the Darwinian view that those at the bottom of the food chain were there because of personality defects and "weakness of body, mind or character, will or temperament"—though he believed that through his generosity he could create the necessary "strong personality" among the weak, leading to "the wider distribution of wealth".⁶ For Rockefeller, changing how people *thought* rather than their material circumstances was the more worthy cause.

But there were also some more pragmatic calculations behind Rockefeller's establishment of a philanthropic empire. Following

Ida Tarbell's scathing history of Standard Oil in *McClure's Magazine* in 1902, Rockefeller was obsessed with improving his public image. By institutionalising his giving, Rockefeller hoped to "prove that rich businessmen could honorably discharge the burden of wealth" (Chernow) as well as dampen further inquiries into the origins of his fortune. The other reason, which emerged once Woodrow Wilson introduced income taxes in 1913, was that gifts to philanthropic funds were tax exempt. Hence, the incorporation of the Rockefeller Foundation in 1913 protected much of his vast wealth from inheritance taxes.

This was a real concern to

Rockefeller, who opposed even the recently introduced six per cent income tax, declaring that "when a man has accumulated a sum of money...the Government has no right to share in its earnings".⁷

During the mid-1890s, Rockefeller gradually retired from publicly running Standard Oil, while pouring a sizeable portion of his fortune into the Rockefeller Foundation and other charitable trusts. From 1915, he turned over his remaining wealth to his only son and designated heir, Junior. Unlike his shrewd and ruthless father, Junior was shy, tormented by self-loathing and clearly burdened by the weight of his father's expectations that he would now run the Rockefeller family's business and philanthropic affairs. It was to help him manage this awesome task that in 1920 Junior employed the lawyer Raymond B. Fosdick (1883–1972) as one of his key strategic advisers.⁸

The Persuader: Raymond B. Fosdick

It is remarkable that Fosdick's name is absent from most New World Order histories, for his relationship with Junior is crucial to any understanding of how the Rockefellers became involved in the NWO. As one of Junior's closest confidants as well as a Trustee (1921–1948) and, later, President (1936–1948) of the Rockefeller Foundation, Fosdick had a pivotal role, as it was he who had first urged Junior to embrace the liberal-internationalist creed of President Wilson. This was not surprising, for Fosdick was a

This may seem at odds with prevailing orthodoxies but the Rockefellers did not subscribe to the globalist ideology until John D. Rockefeller, Jr's time.

lifelong supporter of Wilson, as he acknowledged in a 1956 lecture at the University of Chicago when he said, "from the first day I had met [Wilson] until he died, he had my wholehearted admiration and respect". Fosdick also claimed to have had a "long and occasionally close association" with Wilson that dated from 1903 when he had started studying at Princeton University, where Wilson was the president.⁹

That first meeting at Princeton proved to be the start of a long and productive association for Fosdick, with Wilson taking more than a passing interest in his career in the years that followed. During Wilson's campaign for the presidency in 1912, Fosdick was personally appointed by Wilson to be Secretary and Auditor of the Finance Committee of the National Democratic Committee. He went on to hold a variety of positions in the Wilson Administration, including Chairman of the Commission on Training Camp Activities in both the Navy and War departments. As a civilian aide to General Pershing, Fosdick accompanied Wilson to Europe for the Paris Peace Conference in 1919. During this period, Fosdick also cultivated close relations with Wilson's enigmatic adviser, Colonel House.

Fosdick obviously made a substantial impression, for in May 1919 he was asked by Wilson to accept an offer from League of Nations Secretary-General Sir Eric Drummond to become an Under Secretary-General to the League. A keen supporter of the League, Fosdick had enthusiastically accepted the offer and, in July 1919, took up his new appointment. It was a significant advance for Fosdick, as it made him one of only two Under Secretaries-General in the League (the other was French technocrat Jean Monnet, the future founder of the European Community) as well as the highest-ranking American in the organisation.¹⁰

But Fosdick's dream run was to be short-lived, when opposition in the US Senate to American membership in the League reached breaking point later that year as Senator Henry Cabot Lodge persisted in his attempts to "Americanise" the League of Nations Treaty. Although convinced that Lodge's actions stemmed from a "degree of immaturity in our ideas and thinking", Fosdick knew the controversy had made his position untenable and so he resigned from the League in January 1920. Declaring himself to be finally released from a "burden of silence", a bitter and disappointed Fosdick now resolved "to speak [his] faith before the world". Realising Wilson's vision of a New World Order thus became Fosdick's obsession.¹¹

At this point, it is important to review exactly what Wilson's original New World Order vision entailed. There were four main components.

- The first, and most well known, was the League of Nations, conceived by Wilson as "a community of power" and "an organized common peace", with the League acting as a global forum to settle territorial disputes through arbitration, but it would also have the power to enforce those settlements. According to Henry Kissinger, Wilson's bold vision for the League "translated into institutions tantamount to world government".¹²

- Second, Wilson was a strong advocate of global free trade, including in his Fourteen Points a demand for complete "equality of

trade" and the "removal...of all economic barriers". Wilson was attempting to realise the vision of 19th-century British free-trade advocates Richard Cobden and the so-called "Manchester School" of economists, of a world in which war would be banished, once it was linked together by free trade. But Wilson was also concerned that American industries had "expanded to such a point that they will burst their jackets if they cannot find a free outlet to the markets of the world". Entrenching free trade through a binding global treaty, he reasoned, would save US manufacturers.¹³

- Third, Wilson was a supporter of regional integration at both political and economic levels, evident in his abortive "Pan-American Pact" proposal of 1914–15—the purpose of which, according to his adviser Colonel House, was to "weld North and South America together in closer union". Wilson and House also believed that the Pan-American Pact could serve as a model for political organisation in Europe, and thus the world.¹⁴

- Fourth, Wilson believed the US should assume a global leadership role so it could "play the part which it was destined she should play", and lend its "power to the authority and force of other nations to guarantee peace and justice throughout the world".¹⁵

Wilson's invocation of "peace and justice" should, of course, be treated with the caution that most political rhetoric deserves, especially in view of the myriad paradoxes in Wilson's political career. It was Wilson, after all, who campaigned for the presidency in 1911–1912 with the claim that he would stand up to the "masters of the government of the United States...the combined capitalists and manufacturers". Yet he relied heavily on the generosity of those same "masters of the government", with just 40 individuals providing a third of his campaign funds. This exclusive group included Wall Street bankers Jacob Schiff (Kuhn, Loeb & Co.) and Cleveland Dodge, the stockbroker Bernard Baruch and numerous industrialists, including the owners of the International Harvester Company (also known as the "Harvester Trust").

This was also the same Wilson who expressed his opposition to the "credit trust" of the bankers, but went on to found the Federal Reserve System, fulfilling Wall Street's dual aims of internationalising the US dollar and controlling currency and credit creation in the United States.¹⁶

Given that Wilson was captive to those same "trusts" he had so publicly attacked, it was probably inevitable that one of his most devoted followers would go on to serve one of the greatest trusts of them all.

Driven by a desire to see Wilson's ambitious model of world order become a reality, Fosdick had lobbied for US involvement in the League of Nations, founding the League of Nations Association in 1923. In January 1924, Fosdick had visited the ailing Woodrow Wilson to seek some final inspiration and guidance. He was not to be disappointed, as Gene Smith relates in *When The Cheering Stopped*:

[Wilson] said to Fosdick that it was unthinkable that America would permanently stand in the way of human progress; it was unthinkable that America would remain aloof, for America

It is remarkable that Fosdick's name is absent from most New World Order histories, for his relationship with Junior is crucial to any understanding of how the Rockefellers became involved in the NWO.

would not thwart the hope of the race. His voice broke and he whispered huskily that America was going to bring her spiritual energy to the liberation of mankind. Mankind would step forward, a mighty step; America could not play the laggard. Fosdick was young, and when Fosdick rose to go he pledged in the name of the younger generation that they would carry through to finish the uncompleted work.¹⁷

Sure enough, Wilson's final testament—he died a month later—reinforced Fosdick's globalist zeal. Utterly convinced that the only way to ensure world peace was through some form of world government, and that only US leadership could make it happen, Fosdick devoted his energies to trying to influence elite and public opinion in that direction. In 1928, Fosdick published *The Old Savage in the New Civilization*, which endorsed "a planetary consciousness" and "a collective intelligence". Fosdick argued that if nations were to co-exist without conflict, then: "...we must have some centralised mechanism, some established procedure, by which we can determine the understandings and rules of common life... The assertion of the absolute sovereignty of the state has become in our time the supreme anarchy."¹⁸

The Willing Pupil

The greatest asset in Fosdick's crusade to draw the US back into Wilson's scheme for world order was to be the pious, guilty and impressionable John D. Rockefeller, Junior. Though the designated heir to the Standard Oil fortune, Junior lacked his father's ruthlessness and shrewdness. Loyal to his father's prejudices, Junior had been a staunch Republican, rejecting both Wilson and the League of Nations, yet the slaughter of World War I had also seen him toy with the idea of international cooperation. He had embraced interdenominationalism, participating in the Interchurch World Movement which had sought to combine the resources of all Protestant Christian churches in an attempt to "Christianize the world". In Junior, Fosdick claimed to have found a "remarkable man" of "great sincerity...with a lively sense of responsibility" who "wanted to be convinced, not deferred to". Not surprisingly, convincing Junior to embrace his globalist ideology became one of Fosdick's goals.¹⁹

Although Fosdick's memoirs do not admit it, he was very effective in shaping Junior's worldview. Fosdick's fawning biography of Junior suggests that his growing sense of internationalism stemmed solely from a combination of youthful globetrotting and a religiously instilled "awareness of human kinship and of the bonds that unite the world". Yet, with Fosdick working closely with Junior from the 1920s into the 1940s as one of his senior advisers, there is also a definite and otherwise inexplicable trend of Junior expressing increasingly sophisticated internationalist sentiments as well as supporting the League of Nations and funding the Eastern Establishment's premier body, the Council on Foreign Relations (CFR). Inexplicable, only if we ignore Fosdick's tacit acknowledgement that Junior was very malleable—"his opinions were invariably marked by tolerance, and inflexibility was not part of his character"—and therefore open to his suggestions.²⁰

Evidence of Junior's conversion to Fosdick's ideology abounds. One of Junior's initiatives during the 1920s was the establishment of International Houses for foreign university students. Junior viewed the International Houses as a "laboratory of human relationships"

and a "world in miniature" through which he hoped an "atmosphere of fellowship can be developed". In a 1924 speech to foreign students, Junior spoke of his hope that "some day...no one will speak of 'my country', but all will speak of 'our world'".

Inevitably, through Fosdick's urging, Junior became more interested in supporting the League of Nations. Fosdick introduced Junior to Arthur Sweetser, one of the few Americans still working at the League, who also encouraged his interest in the world organisation. The impact was clear, with Junior directing the Rockefeller Foundation to grant money to the Health Organization of the League of Nations, and later giving some \$2 million of his own funds to establish the League Library. During the 1920s he also contributed \$1,500 a year to the CFR, then dominated by supporters of Wilson, and in 1929 provided a further \$50,000 towards the Council's new headquarters in New York, Harold Pratt House.²¹

The enduring influence of Fosdick's Wilsonian internationalism was also evident in a 1938 address by Junior, in which he made a number of observations about the impact of technological change and growing interdependence. In effect, Junior predicted the end of the nation-state, and thus charted a course that his sons would endeavour to make into a self-fulfilling prophecy:

With each passing day, with every new invention which increases the rapidity of travel and the ease of communications, cooperation between men and nations becomes constantly more important. The nations of the world have become interdependent as never before. The hands of the clock cannot be turned back. The old order of

*geographic isolation, or personal or national self-sufficiency, can never return. The future of civilisation will be determined by the degree of success with which men and nations learn to cooperate, to live together and let live.*²²

The culmination of Junior's embrace of Fosdick's internationalism was his decision in late 1946 to donate land in New York for the headquarters of the newly created United Nations (UN)—the site still used to this day. But arguably Junior's greatest legacy was the impact of his newfound globalist zeal on his children. The effect was twofold: firstly, he passed on Senior's philanthropic philosophy of using Rockefeller wealth to change society, embedding it in a plethora of institutions and organisations that gave the Rockefellers "an unrivalled influence in national affairs";²³ secondly, he established in them an enduring belief in Fosdick's ideology of international cooperation and governance, itself based on Woodrow Wilson's League of Nations vision.

Junior had six children: a daughter, Abby; and five sons, John, Nelson, Laurance, Winthrop and David, four of whom would go on to play leading roles in establishing the New World Order...and it is to those Rockefeller brothers that we now turn.

About the Author:

Will Banyan, BA (Hons), Grad. Dip. (Information Science), is a writer specialising in the political economy of globalisation. He has worked for both local and national governments as well as some international organisations, and was recently consulting on global issues for a private corporation. He is currently working on a revisionist history of the New World Order. He can be contacted at banyan007@rediff.com.

Continued on page 76

— MANGANESE & INFRASOUND — THE LINK TO MAD COW DISEASE

The rise in rates of BSE and vCJD is likely the result of a high manganese/low copper mineral imbalance which compromises the mammalian brain's capacity to deal with incoming shock-bursts of infrasound.

Part 1 of 2

by Mark Purdey © 2002, 2003

High Barn Farm
Elworthy, Taunton, Somerset TA43PX
United Kingdom
Email: MadCowPurdey@aol.com
Website: <http://www.markpurdey.com>

An Underground, Ecodetective Journey

The White Sands Missile Range is an extensive spread of US military-controlled cactus country that spans the southernmost extremes of the San Andres Mountains in New Mexico. There is an eerie atmosphere to the place.

A Department of Natural Resources truck kicks up the dust across the droughty canyon, its engines reverberating in an agitated mode. It stops at the main entrance gates along the 12-foot-high perimeter fence. One of the wildlife officers gets out and walks to security, seemingly oblivious to the distant thump of a missile exploding across the range. He is clearly preoccupied with the more important task of slaughtering animals that have succumbed to this so-called "hyperinfectious" disease. The truck is soon on its way, loosing itself within the thousands of acres of parched-up military compound.

They've come to investigate yet another new eruption of chronic wasting disease (CWD)—the deer equivalent of "mad cow disease" (BSE). This outbreak is particularly significant, in that it represents the first cases of transmissible spongiform encephalopathy (TSE) disease recorded in a deer herd within the state of New Mexico. Furthermore, the affected herd has been confined behind the top-security perimeter fence for several decades.

This latest epidemiological aberration delivers a serious challenge to the viability of the conventional consensus on the origins of CWD. It has rumbled the cornerstones of institutionalised "expertise", questioning those who have plumped for the assumption that some unconventional "hyperinfectious" agent is spreading via body to body contact through the deer populations.

So how did the "infectious agent" jump the 500-mile gap between the CWD hotspot zone in Colorado and the CWD-free deer residing within the White Sands Missile Range? The "experts" were baffled. But, true to form, this latest challenge to the official theory was conveniently obfuscated into oblivion, outcast as some illusory mirage that just happened one day in the New Mexico desert.

But the answer is only evident to those who care to scratch a bit deeper than the dust. For they cannot help but notice some overt environmental features that exclusively predominate this unique location—factors which are invariably shared by every single TSE cluster location around the world.

Before the military came, White Sands was an industrial centre for the mining of manganese oxide and wulfenite ores (note that wulfenite contains the copper-chelating molybdenum metal). The museum-quality black crystals lay scattered across the top of the terrain. They twinkle out a kind of sombre resonance under the desert sun, emanating the haunted history of the place.

And since the military has occupied the range, the US authorities have been actively engaged in monitoring the unique intensity of infrasonic shock-bursts that are radiated by the explosions of their own missiles. The poor deer herd has played guinea pig to an unwitting experiment that has cracked the causal riddle of spongiform disease.

The BSE Debacle

Since 1986, the infamous novel neurodegenerative syndrome BSE (bovine spongiform encephalopathy) and vCJD (variant Creutzfeldt-Jakob disease) has insidiously blighted the heartbeat of British rural life. The disease has annihilated thousands of head of cattle and a growing number of young people, while creating a fierce battleground between nations, vested interests, political parties, farmers, victim support groups and consumers.

More recently, the shock-waves of the BSE debacle have ricocheted around the entire world.

But despite the severity of the "mad cow" legacy, little genuine attempt has been made to crack the causal riddle of the disease, thereby leaving us devoid of insight into measures that would best cure, control and, better still, prevent it.

This story shines a ray of light over the whole debacle. It charts my own ecodetective escapades and original field investigations which ran in tandem with the laboratory quest of Cambridge University biochemist Dr David Brown. These combined works have gone some way towards unearthing the truth underpinning the original causes of this grotesque disease.

Hard scientific evidence has been amassed which indicates that BSE and vCJD could both result from separate exposure of bovines and humans to the same package of toxic environmental factors—ferrimagnetic metals and low-frequency sonic shock—and not from the ingestion of infected bovine material. If such a polemical hypothesis continues to accumulate momentum, a radical upheaval of the status quo mindset can be expected.

But despite the conclusions of several field and laboratory studies providing strong support for the environmental hypothesis, the resulting publications have been dismissed outright by the UK government. Furthermore, contrary to the positive recommendations of the UK 2000 BSE Inquiry and EU Commission BSE reports in respect of funding research into this theory, the UK government's irrational rejection of grant proposals—including one submission aimed at developing a feasible cure for vCJD—continues to the present day.

The Lone Voyager

My work first came to the fore after I successfully quashed the UK government's compulsory warble fly eradication regime in the High Court of London in 1984. This exempted my farming business from treating our dairy herd with a systemic organo-dithiophosphorus (OP) insecticide—a toxic chemical which, amongst myriad toxicological effects, can chelate copper and open up the blood-brain barrier, thereby disturbing the overall crucial balance of metals in the brain.

I was therefore not surprised to witness BSE rearing its ugly head in the UK cattle herd in 1985. In my opinion, it was a direct legacy of the UK government's compulsory warble fly eradication campaign—a 1982 measure that enforced the exclusive twice-annual high-concentration application of systemic-acting OP insecticide.

As considerably smaller outbreaks of BSE began to erupt across other European countries and later in Japan, my investigations revealed the voluntary usage of the same types of systemic insecticide in those countries—albeit at half the dose rates as applied in the UK. These European outbreaks seemed to follow an EU campaign, known as COST 811, which was aimed at purging the remaining bastions of warble infestation on the European mainland—in countries where outbreaks continued because their respective authorities had adopted a more laid-back, voluntary approach towards control of warbles.

In warble-free Japan, the BSE cases emerged in the specific herds which had imported breeding cattle from warble-infested North America; and so the Japanese took preventive measures by

blanket-treating those herds with the same types of systemic OP that had been used in Europe. It should be pointed out that the USA wisely adopted a less toxic approach for dealing with their warbles, employing lower doses of non-systemic-acting insecticides—e.g., insecticides which were not designed to penetrate through the skin—while only treating the individual cattle that were warble infested.

I was a working dairy farmer with first-hand experience of BSE erupting in cattle that had been purchased into my organic farm. But I was struck by the fact that no cases of BSE had ever emerged in cows that had been born and raised on fully converted organic farms, despite those cattle having been permitted access to the feed that contained the incriminated meat and bone meal (MBM) ingredient as part of their 20% conventional feedstuff allowance decreed in the organic standards at that time.

From then on, I became deeply sceptical of the conventional consensus on the origins of BSE and its human equivalent, vCJD. There were just too many radical flaws blighting the hypothesis that bovine ingestion of micro doses of scrapie-contaminated MBM led to BSE. Equally flawed was the follow-up theory that human ingestion of BSE-contaminated beef caused vCJD.

I was struck by the fact that no cases of BSE had ever emerged in cows that had been born and raised on fully converted organic farms.

The "hyperinfection hysterics" had based their hypothesis upon the notion that TSEs could be transmitted via injections of TSE-diseased brain tissues into unfortunate laboratory animals. Yet various other neurodegenerative diseases, such as familial Alzheimer's disease, have been transmitted in this way.

So why is nobody freaking out about Alzheimer's disease?

The Flaws in the Conventional Hypothesis

1. Thousands of tonnes of the BSE-incriminated meat and bone meal feed was exported as cattle feed during the 1970s/1980s/1990s to countries and regions that have remained BSE free to date—e.g., South Africa, Sweden, Eastern Europe, Middle East, India, Third World, etc.

2. Relaxation of the temperature standards and manufacturing techniques in the MBM rendering process in the UK was blamed for permitting the survival of the scrapie agent in sheep brain material, thereby enabling the "agent" to jump across into cattle, producing BSE. But none of these alterations was exclusive to the UK rendering plants. For instance, other scrapie-endemic places such as the USA and the Scandinavian countries had adopted the same continuous flow system of rendering five years before the UK did, yet these countries have remained BSE free. Furthermore, the pathogenic "infectious" capacity of the scrapie agent remains active after heating to temperatures in excess of 500 degrees—way above the 150-degree temperatures employed in the supposedly "safe" rendering processes operating in pre-BSE days.

3. Several abhorrent live-animal trials in the USA failed to induce BSE in cattle after feeding/injecting them with massive doses of scrapie-contaminated brain tissue.

4. Forty thousand-plus cows that were born after the UK's 1988 ban on MBM incorporation into cattle feed have still developed BSE.

5. Several countries such as Ireland, Portugal and France witnessed a greater number of BSE cases in cows born *after* their respective bans on MBM than in cows born before the bans.

6. In the UK there have been no cases of BSE in other TSE-susceptible ruminants such as goats and sheep, despite the customary inclusion of the same MBM protein source in their feeds.

7. Four of the original five kudu antelope that developed BSE at the London Zoo had not had any possible access to feeds containing MBM.

8. The UK government's former experimental farm at Liscombe on Exmoor was designed to raise suckler beef cattle on a pure grass/silage system, without resorting to feeding any MBM-containing concentrated feeds at all. Yet BSE struck down four animals on this holding.

9. The infamous mechanically retrieved meat products/baby foods blamed for causing vCJD in the UK were exported all over the world to countries where vCJD has not erupted to date. Likewise, the tradition of "skull splitting" in small rural butchers, which has been offered as an explanation for the growing number of vCJD clusters in rural areas, had been practised by the smaller butchers all over the UK.

10. BSE fails to fulfill "Koch's postulates"—the yardstick for gauging whether a given disease stems from infectious origins. For instance, more than 15% of cattle slaughtered for displaying the classic symptoms of BSE did not demonstrate the presence of the "causal" prions at post-mortem.

The Reductionist Mindset Takes a Firm Hold

Despite the myriad epidemiological flaws and millions of pounds worth of research failing to ascertain any association between the origin of these diseases and the scrapie agent, the whole propaganda myth that BSE was caused by scrapie became incorporated as "gospel" into the mainstream public/professional mentality.

But it is easy to see how the momentum of such a reductionist mindset took a hold. The media loved the theory because they could drum up a viral holocaust-horror scoop. The farming industry could get their beef sales back on the road by deluding consumers into believing that they had eliminated the causal agent. The vegetarian lobby found themselves landed with a powerful propaganda weapon on their plate, while the scientific institutions could carry on drawing generous funding for their hyperinfection witchhunt without the embarrassment of having to account for years of barking up the wrong tree. And the government could conveniently offload the blame onto the vagaries of some naturally occurring "nasty" for which no vested interest or official directive could ever be held accountable.

In the early days, the world of TSE research had been confined to the rather cranky ranks of backstreet institutions whose researchers seemed more preoccupied with advancing acidic debate over the nature of the "infectious" agent than with getting on with worthwhile research projects. It was these scientists who first fossilised the reductionist notion that TSEs stemmed from infectious origins.

But as soon as the positive evidence for the first case of BSE was back from the lab, a fast-expanding clique of "expert" micro-

biologists swooped in, hijacking all the research grants and rapidly laying claim to full ownership and academic rights over this new strain of TSE. They coined the classy name "prion disease", and ran a host of sharp-suited symposiums set in expensive five-star Floridian hotels, thousands of miles adrift from the English pasturelands—the hotbed of the real problem.

From then on, any investigations into the broader scientific perspectives surrounding TSEs were frozen out of the agendas of the funding bodies. Multidisciplinary research studies were forced to give way to research projects that conformed to the convergent assumption that the "prion" would encapsulate all of the answers to this problem. The journals were soon bursting apart with a monotonous dirge of articles that bleated out yet another variation on the stereotyped theme of the prion protein: prion protein genotypes, the biochemistry of the prion protein, along with a countless number of prion transmission live-animal studies that had been duplicated by virtually every institution involved with TSE research—for no useful scientific purpose.

Once it became clear that the various feed-bans had failed to halt BSE in the UK (e.g., the 40,000+ BSE cases in cattle born after the 1988 feed ban), the incestuous clique of "expert" advisers was forced to come up with an ever-increasing array of implausible reasons for explaining the continuation of BSE. And following on from that advice, an equally inept package of control measures was implemented whenever and wherever TSE reared its ugly head around the world.

Their final farcical solution entailed a wholesale annihilation programme of both wild and domestic animal populations across specially designated TSE eradication zones. Despite the well-publicised history of total failure of these abhorrent control measures, this brave new wave of totalitarian overkill went unquestionably ahead—gobbling up millions of healthy mammalian lives and millions of dollars of public funds.

Prion Origins: The Quest for the Primary Cause

While it is well established that the key pathological hallmark of the spongiform-diseased brain is represent-

ed by a malformed version of the prion protein, known as the prion, there is no actual evidence in support of the assumption that the protein portion of the prion represents the TSE infectious agent. Nor is there evidence that TSEs are infectious diseases that can be spread via body-to-body contact. And furthermore, nobody has offered a credible explanation as to how these abnormally shaped "prions" initially develop in the mammalian brain or the natural environment, nor explained how these prions are capable of inducing a kind of cascade of self-replication in the TSE-diseased brain.

I became interested in the possibility that the use of systemic OP warble fly insecticides may have triggered this protein malformation in some way, thereby serving as one of the primary causes of the modern BSE/vCJD strains of this disease. For these oil-based chemicals were designed to penetrate through the skin and metamorphose the internal environment of the cow into a poisonous medium so as to exterminate internal parasites. They had to

... nobody has offered a credible explanation as to how these abnormally shaped "prions" initially develop in the mammalian brain or the natural environment ...

be poured along the head/backline of the cow, just millimetres from where the prion protein is manufactured in the cell lines of the spinal cord.

It was well recognised that OP insecticides exert their toxic effects in mammals by deforming the molecular shape of various nerve proteins like acetylcholinesterase, whereupon these malformed proteins cease to perform their proper function in the brain. But nobody had ever considered that a similar-style molecular interaction might occur between OPs and the prion protein. Since the prion protein has been shown to bond up with copper in the healthy brain, I felt that the ability of these dithio insecticides to lock up copper in the treated animal may play some role in deforming the prion protein.

After many abortive attempts to coerce the Establishment into running the correct laboratory test, I eventually raised funds from well-wishers and obtained personal loans to finance Dr Stephen Whatley of the Institute of Psychiatry in London to challenge brain cell cultures with the OP phosmet—the actual OP used at uniquely high doses on UK farms.

Amazingly, these trials demonstrated that the OP altered the cellular metabolism of prion protein in some of the ways observed in the early stages of spongiform disease—suggesting that phosmet exposure may render mammals more susceptible to the disease. Unfortunately, these experiments did not produce the key deformation of the prion protein that is seen in TSEs.

I returned to square one, assuming that OPs in combination with a further factor X could fulfill the final missing link in the causal jigsaw. Or perhaps OPs weren't involved at all!

The Cluster Buster

Caught in the midst of a minefield of multinational interests, medical spin doctors and political propagandists, I grew exhausted by the vortex of professionals who had successfully hijacked all UK scientific research into TSEs into a cul-de-sac.

Furthermore, I'd found myself frozen out into the cold, operating much like an underground scientist, tramping a covert journey around the rustic outbacks of the UK's farmlands to nail down the true cause of BSE.

So I expanded my horizons and embarked upon a refreshing ecodetective trek to analyse the unique environments around the world where traditional TSEs had erupted as high-incidence clusters for many years. By scanning the overall essence of each cluster location, I attempted to pinpoint the common causal factors—the aetiological needles in the causal haystack.

Against a backdrop of flamboyant and sometimes threatening scientific scenery, I embarked on a lone journey to the ends of the Earth, sampling exotic corners of Colorado, Iceland, Slovakia, Calabria, Sardinia, Japan, etc.—areas where an assortment of animals and humans had demonstrated a high incidence rate of TSE. My analytical results displayed abnormally high levels of the metal manganese and rock-bottom levels of copper, selenium and zinc in common in all of these food chains. Levels of manganese were normal in adjoining disease-free areas.

I was also fascinated to discover that these TSE-affected populations lived in areas that were enduring front-line exposure to intensive shock-bursts of low-frequency infrasound—from military and quarry explosions, volcanic and earthquake activity, low-flying supersonic jets, *Concorde* overflights, etc.

A specific environmental source of manganese could be pinpointed in every TSE cluster zone that I had investigated to date, where each TSE-affected ecosystem could be directly connected to the atmospheric fallout of some naturally occurring or industrial source of combusted manganese oxide, e.g., stemming from volcanic activity, acid rain, steel/glass/ceramic/dye/munitions factories, lead-free petrol refineries, the take-off airspace beyond airports, etc. In this respect, it should be borne in mind that atmospheric manganese, much like silver and aluminium, can be absorbed directly into the brain via the nasal-olfactory inhalatory route of intake. Perhaps this highly efficient mode of uptake enables sufficient concentrations of manganese to accumulate in the brain and initiate TSE?

Furthermore, many of the mammalian populations involved in the outbreaks of both traditional and new-strain TSE could be linked to the consumption of high-concentration manganese supplements for bone growth, etc. For instance, the clusters of chronic wasting disease in deer could all be linked to the areas where a "spiced up" manganese mineral lick had been put down by the deer hunters for addicting deer to their shooting territories. The manganese is added for promoting antler growth. In fact, *all* species connected with TSEs—deer, cows, goats, mink, sheep, zoo animals, cats, humans, etc.—are given manganese supplements in their feed.

Disturbingly, manganese is also added to milk substitute powders for calves (and human infants) at levels up to 1,000 times those found in normal cow's milk. This practice has been widespread in all countries affected by BSE to date.

Excessive intake of dietary manganese poses a great risk for the immature mammal, since the regulatory mechanisms of the blood-brain barrier

are underdeveloped at this stage, thereby permitting an excessive uptake of manganese and other metals into the brain.

The addition of manganese to substitute milk powders explains why European dairy cattle—which were invariably reared on this powder—suffered such high incidence rates of BSE in relation to the negligible rates in beef suckler and organically reared cattle—which were invariably reared on natural cow's milk.

Every Storm Cloud Has A Silver Lining

A few other TSE cluster hotspots had demonstrated the same low-copper connection but had measured abnormally high levels of other potentially toxic transition metals such as silver, platinum and lithium as well as manganese. Much like manganese, these metals will also readily substitute at copper bonds on prion proteins.

Some of these TSE environments were silver-mining areas where local ecosystems were naturally high in silver, while others

A specific environmental source of manganese could be pinpointed in every TSE cluster zone that I had investigated to date.

were centred around ski resorts, reservoirs, airport flight paths, coastal districts, and sites where extensive aerial spraying of weather-modifying silver iodide "cloud seeding" chemicals had been used for inducing rainfall/snowfall and dispersing cloud/fog.

Metals like silver and platinum are also used as key ingredients in dental amalgam fillings, surgical depth electrodes/instruments, etc., perhaps explaining why dental treatments and surgical operations/electrode implantations are considered to be high-risk prerequisites for triggering CJD.

Manganese Breaketh Man

The recent surge in the global rates of TSEs (and other neurodegenerative diseases) seems to have run in tandem with the increased incorporation of high-concentration manganese oxide additives into the bovine, human, pet and zoo animal food chains—via a multitude of applications such as free-access mineral licks, supplement tablets, fertiliser and fungicide sprays, paints, petrol additives, etc., or via increased consumption of trendy food products, such as soya, which naturally bioaccumulate high levels of this metal from the soil.

Given the fact that long-term manganese exposure is well known to induce a wide array of progressive neuropsychiatric degenerative disorders—dubbed the "manganese madness" syndromes—in factory welders and mine workers, etc., the idea that manganese could perform a front-line role in the pathogenesis of TSEs is not out the way.

In fact, manganese toxicity can manifest itself in many forms. When I visited areas in the South Pacific, like the island of Guam, where a raft of neurodegenerative conditions involving Alzheimer's, Parkinson's and motor neurone diseases used to run at a fiftyfold higher incidence rate than elsewhere across the world, I noticed that manganese mining used to be widely practiced in all of these areas.

And then I arrived on Groote Eylandt, a once-upon-a-time enchanted tropical island in the Gulf of Carpentaria in northern Australia, whose history has witnessed a bizarre degree of "heaven and hell". Not only do the island's soils play host to the mother of all manganese concentrations, but its flamboyant rainforest ecosystems have supported ideal hunter-gatherer grounds for some of the most pure bred, nomadic Aboriginal clans alive in Australia today. But, as I was soon to learn, the tropical charms of a Groote Eylandt of "pick-your-own" coconuts and turquoise seas can be deceptive to the uninformed outsider.

I found that 3% of an indigenous Aboriginal clan residing around one of the largest open-cast manganese mines in the world had recently been struck down by a bizarre ataxic syndrome—what turned out to be caused by a high manganese/low magnesium-induced mutation in early life.

Former fit and healthy Aboriginal warriors were finding themselves progressively transfigured into debilitated and wasted neurodegenerative wrecks—more akin to stick insects trying to cross ice. Furthermore, the levels of unrestrained aggression and murder in this community had reached crisis proportions, where grotesque "Hieronymus Bosch-style" brawls erupt on a weekly basis.

In this respect, the link between manganese and aggression has

been well established, where manganese has been recorded at elevated levels in the bodies of those who have been executed on death row for violent crimes. Professor Louis Gottschalk, the man who carried out these studies, reckons that "manganese levels serve as a marker for violence".

But, true to form, the official cause of this "drunken walking" syndrome has been conveniently scapegoated onto a mutation caused by faulty Aboriginal "seed".

To challenge this dogmatic assumption, I travelled several thousand miles to another isolated cluster of this same ataxic condition that exists amongst indigenous folk living on the islands of Flores and São Miguel in the Azores archipelago. After drawing a range of environmental samples, I unearthed the same abnormal mineral ratio that is found on Groote. In fact, the levels of manganese were so high in the black volcanic soils of these islands that the mining prospectors had considered it lucrative to mine the metal from the local Azorean seabed.

Given the high intensity of various neurodegenerative diseases that have invariably erupted around all of the manganese hotspot regions, I was beginning to wonder whether the increased exportation of manganese dioxide ores into the steel, glass, dye, lead-free fuel, paint and mineral feed supplement industries across the developed world had somehow seeded the "mad cow" madness in the deer, sheep, cats, zoo animals, cows and teenagers.

Laboratory Studies Support the Theory

My observations of high manganese/low copper in TSE cluster areas led to my connecting with the pioneering laboratory investigations of Dr David Brown at Cambridge University in the UK. He is a widely published biochemical expert who had pursued groundbreaking studies which unearthed interesting new facets of the elusive prion protein.

Dr Brown had demonstrated that the prion protein bonds to copper in the normal healthy brain. In this respect, his lab studies were complementary to my field studies in that they provided the other half of the necessary groundwork upon which I formulated an holistic hypothesis on the origins of these diseases.

I published a paper proposing that manganese could substitute itself at the vacant copper site on the prion protein, whereby this aberrant substitution by a foreign metal co-partner could induce the all-important deformation of the protein that is considered to be crucial to the development of TSE. In this respect, any TSE-susceptible mammals who were dependent upon these high manganese/low copper TSE cluster food chains would be at risk of developing TSE.

So David Brown ran the necessary cell culture experiments where he introduced manganese into copper-depleted prion protein cell cultures. Amazingly, his experiments produced the key deformation of the prion protein which the earlier tests using OPs had failed to create. These experiments represented the first time that malformed prion protein had been created experimentally as a *de novo* transformation.

Furthermore, follow-up trials by the USA's Prion Surveillance Center at Case Western University, Cleveland, looked at post-mortem tissue samples taken from CJD brains. Their analyses revealed the same abnormal mineral ratio as identified in the TSE

These experiments represented the first time that malformed prion protein had been created experimentally as a *de novo* transformation.

cluster environments—a tenfold higher level of manganese and a 50%-reduced level of copper in relation to control brains. Interestingly, the manganese was bonded to the abnormal prions in these CJD tissues.

It seemed that the basic cornerstone of the environmental theory was beginning to establish itself, and an overall picture of the pathogenesis of disease was panning out: that a high manganese/low copper imbalance somehow compromised the brain's ability to deal with acute shock-bursts of sound and light—the other common characteristics of TSE ecosystems.

My investigations indicated that the traditional forms of TSE—which tend to surface in elderly mammals—represent a less intensive mode of exposure to naturally occurring environmental influences which bring about a high manganese/low copper ratio in the mammalian brain.

Whereas, the more aggressive "rapid attack" modern strains of TSE—BSE, vCJD—can be explained by the current trend of increased mammalian exposure to a modern cocktail of man-made pollutants involving manganese compounds and copper-chelating chemicals (e.g., the warble fly and headlice OP insecticides). These penetrate into the central nerves and give rise to the more virulent, accelerated version of TSE, where full-blown symptoms of TSE erupt in much younger mammals than normal.

But unfortunately, the abnormally shaped prions, which Brown's high manganese/low copper experiments had created, failed to demonstrate the bizarre "infectious" multireplicating property that has been associated with the fully fledged prion in the TSE-diseased brain.

Could the further infrasonic shock factor that I had identified in the TSE cluster regions fulfill this final missing piece in the causal jigsaw? Perhaps some "shock-induced" quantum facet of the manganese atom may provide that final clue.

Quantum Capacities: Final Key to the Causal Jigsaw?

Modern health authorities could learn a lesson from the alchemists of the Byzantine era who regarded manganese as the black magic metal, whereby the quantum capacity of manganese to absorb light and sound energy can induce a lethal "Jekyll and Hyde"—style conversion of this metal from innocuous to toxic form.

Interestingly, the initial pathological damage of TSE is manifested within the diseased mammal's retina, eyelid, skin, auditory and optic nerve endings—areas that perform a front-line role in neutralising the deleterious effects of incoming sound and light from the external environment.

Furthermore, the normal copper-bound prion protein is exclusively manufactured in these same tissues: the retina, spleen, lymphatics, tonsils, gut membranes, growth/repair cells, myocardium, pineal gland, visual cortex, pituitary gland, sympathetic neurones, etc.—tissues whose metabolism is regulated by the circadian daylight/darkness rhythm.

Laboratory animals that have been cruelly subjected to GM prion protein "knock-out" experiments have demonstrated that they are no longer able to regulate their sleep, sex and immune cycles—a sick way of demonstrating the role of the prion protein in mediating the circadian rhythm.

Copper Prions as the Conductors and Manganese Prions as the Blockers of Electromagnetic Energy Flow

The simple fact that copper is employed in electrical cables for conduction of electrical energy, whereas manganese is employed in batteries for storing electrical energy, offers a feasible explanation for both the function/dysfunction of the prion protein as well as the cause of TSEs.

Perhaps the copper element of the normal healthy prion protein plays a role in the conduction of electromagnetic energy along the circadian/auditory pathways of magnetic superexchange, where a linear chain of paramagnetic copper atoms (bonded to prion proteins) provides a "metal to metal to metal..." motorway which distributes the energy of light and sound around the body for energising the cycles of sleep, sex, behaviour, heartbeat, cell growth/repair and immune response. Whereas the abnormal manganese prion serves to block the pathways of electromagnetic superexchange by storing that electromagnetic energy to a level where the critical threshold of "flashpoint" is exceeded, thereby detonating neuropathogenic cluster bombs of free-radical chain reactions that progressively degenerate the circadian pathways of

the brain—and cause TSE. In this respect, the blockage of the electromagnetic energy flow by such manganese replacement of copper can precisely account for the clinical and pathological profiles of the TSE disease process.

It could be said that the discovery of the function of the prion protein may turn out to give further scientific substance to the existence of the electromagnetic meridians recognised by Chinese medicine—where the healthy copper prion performs a regulatory role in maintaining the electro-homoeostasis along the acupuncture meridians and nodes.

While David Brown's manganese experiments had created the infamous deformed prion protein, they had failed to produce the all-important pathogenic "infectious" prion. Furthermore, manganese is a paramagnetic metal (i.e., a metal that can be temporarily magnetised), just like copper, so to some extent you would expect the manganese to substitute effectively for the electromagnetic conduction function of copper without too much negative repercussion. Perhaps some further modification of the manganese atom initiates a pathogenic capacity that is capable of kicking off the full-blown pathogenesis of TSE.

An Infrasound-induced Metamagnetic Transformation of the Manganese Atom?

One of the interesting properties of manganese is that it can absorb the energy of sound—well illustrated by its use (as with chromium, etc.) in some audiotape materials for storing a memory-bank of sound recordings in magnetic form. But manganese can only couple up with phonon energy when it occurs in its trivalent octahedral crystalline form.

So if atmospheres or soils containing manganese 3+ atoms are exposed to high intensities of infrasonic shock energy, these low-frequency vibrations are sufficient to metamorphose the actual atomic structure of the manganese atom itself, creating a kind of "Jekyll and Hyde"—like transformation of manganese from its normal paramagnetic form to rogue ferrimagnetic form, i.e., from a temporary to a permanent magnetisable form.

One of the interesting properties of manganese is that it can absorb the energy of sound.

Once an ecosystem has been infrasonically adulterated, any manganese 3+ minerals that have been exposed to the full force of infrasonic shock—from military explosions, supersonic overflights, volcanic eruptions and tectonic activity, etc.—would leave a permanent legacy of rogue ferrimagnetic manganese atoms that are free to infiltrate the food chain, thereby contaminating any mammalian population that is dependent upon the local ecosystem in the years to come. If the adulterated food chains are simultaneously short of copper, then the mammalian population is put at high risk of developing TSE.

TSE Clusters Correlate to the Epicentres of Infrasound

The overriding presence of this package of environmental prerequisites has been identified in every TSE cluster zone investigated to date. Besides the White Sands Missile Range, another clearcut example of the presence of infrasound involved an intensive outbreak of scrapie after sheep had been moved onto a block of copper-deficient common land at Ashoro on the Hokkaido Peninsula. This land was previously occupied by the Japanese military during World War II, where intensive explosions were a daily occurrence.

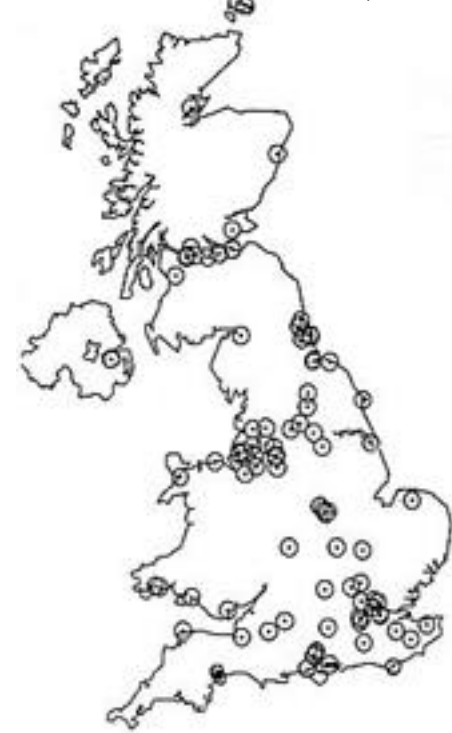
And then there is the well-renowned, long-established CWD hotspot zone that runs along the copper-deficient Front Range foothills region of Fort Collins in Colorado. This area used to play host to the supersonic test flights of the military jets from nearby Warren Air Force Base during the late 1960s/early 1970s. When the complaints of Fort Collins residents reached screaming point, the military was forced to move the flights to the plains in the northeast—and CWD outbreaks have followed likewise.

Furthermore, my investigations have identified that the new wave of CJD, BSE and scrapie clusters that have erupted across southern Italy, Sardinia and Sicily since the mid-1990s are invariably located in areas beneath the flight paths radiating out of the intensive number of NATO bases recently sited within this strategically important military position in the Mediterranean.

As a rule, the traditional forms of TSE result from exposures to the naturally occurring infrasonic shock waves that radiate from geotectonic plate rift lines (earthquakes, volcanic activity, etc.), whereas the new-strain TSEs result from the more intensive low-frequency shock-bursts radiating from supersonic military and *Concorde* aircraft. The emergence of the respective types of TSE clusters along these rift lines and flight path lines substantiates this idea well.

Perhaps it is no surprise that 99% of the total cases of vCJD and BSE to date are

Map 1:
Geographical distribution of vCJD cases at onset of symptoms at 2001.
(Source: CJD Surveillance Unit, Edinburgh, UK)

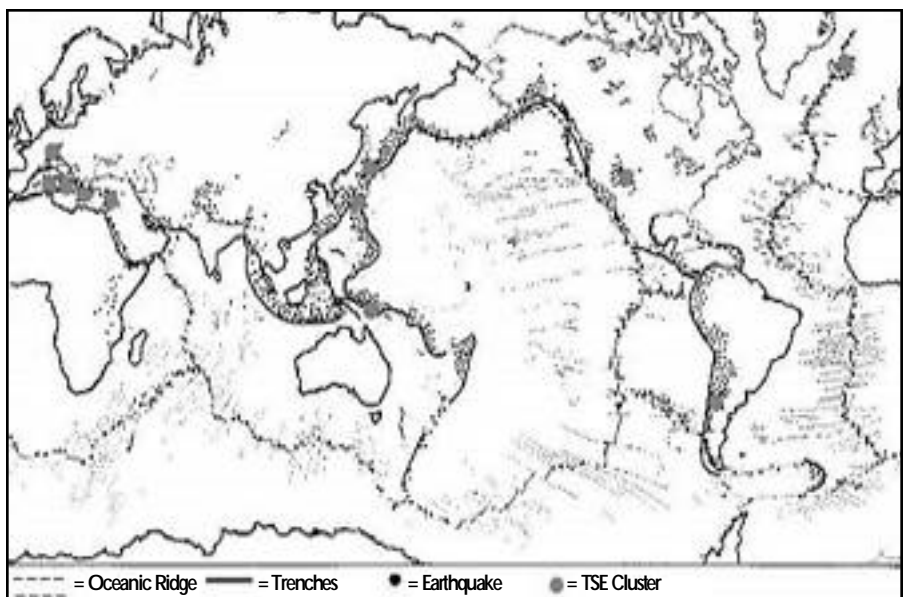


Map 2:
Areas in the UK where manganese deficiency can occur in crops, so where spraying of manganese fertiliser occurs.



contained within Britain and France, both countries having exclusively developed the *Concorde* aircraft, thereby unwittingly exposing themselves to the most intensive source of artificial infrasound unleashed to date.

In this respect, all of the clusters of new variant CJD that have erupted in rural regions in the UK lie beneath the routine and charter flight paths of *Concorde* and low-flying military jets. The afterburner turbofans employed by these supersonic aeroplanes radiate such a high intensity of low-frequency infrasound that a



Map 3:
Correlation between locations of long-term cluster of sporadic/familial TSEs and areas of seismic activity along the major global tectonic plate margins.

100-km-wide carpet of acoustic shock-waves is left in their wake, whether the aircraft are flying subsonically or supersonically. Racing pigeons which have flown into this shock carpet have failed to return home, having permanently lost their sense of magnetic orientation.

Some interesting epidemiological data on BSE clusters was first presented to the BSE Inquiry by Dr Richard Morris, an epidemiologist from New Zealand. He showed that the most intensive clusters of BSE had always appeared on the extreme tips of the copper-deficient west coast peninsulas in the UK. How could this pattern relate to MBM feeding?

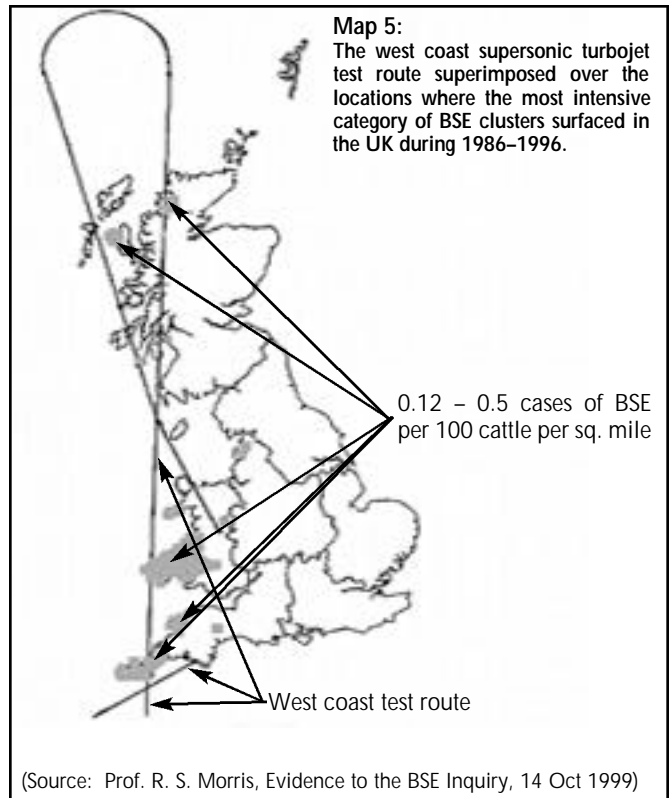
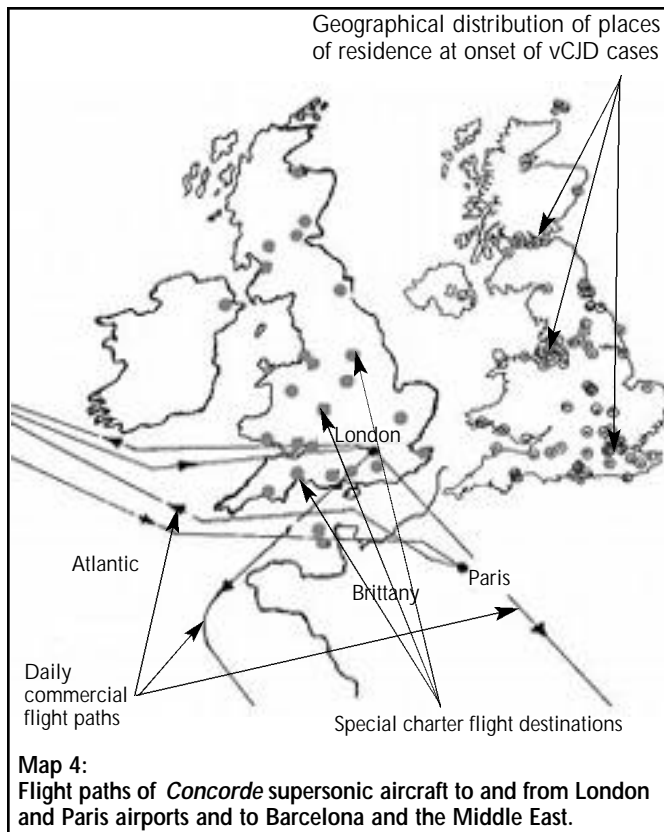
Intriguingly, the well-used west coast route for supersonic military and *Concorde* aircraft runs precisely over these BSE hotspot locations.

It is perhaps no surprise that the infrasonic environs of Staten Island and Long Island in the USA—both under the flight paths of John F. Kennedy Airport where *Concorde* and other aircraft take off and land—have demonstrated the highest incidence cluster of traditional CJD in the USA.

The pattern of emergence of both traditional and new variant TSE clusters in rural/coastal areas, as opposed to urban areas, substantiates well the hypothesis of an environmental origin. For rural/coastal ecosystems have become increasingly exposed to a toxic combination of manganese-based fertilisers/fungicides, copper-chelating pesticide sprays as well as the infrasound resulting from the overflights of low-flying turbojet aircraft that have been prohibited over urban areas of high population density.

Furthermore, this geographical pattern of TSE emergence helps to dispel the myth that CJD arises from ingestion of TSE-affected animal products, since meat products are consumed equally by urban and rural populations alike.

Continued next issue



Bibliography

NB: For additional references, please refer to the "Cattle Practice" article on the scientific pages of Mark Purdey's website, <http://www.markpurdey.com>.

- Purdey M. Ecosystems supporting clusters of sporadic TSEs demonstrate excesses of the radical-generating divalent cation manganese and deficiencies of antioxidant co-factors Cu, Se, Fe, Zn. Does a foreign cation substitution at Prp's Cu domain initiate TSE? *Medical Hypotheses* 2000 54(2):278-306.
- Purdey M. Does an ultraviolet photo-oxidisation of the manganese-loaded/copper-depleted prion protein in the retina initiate the pathogenesis of TSE? *Medical Hypotheses* 2001 57(1):29-45.
- Purdey M. The Mn-loaded/Cu-depleted bovine brain fails to neutralise incoming shock-bursts of low-frequency infrasound. The origins of BSE? *Cattle Practice* October 2002 10(4):311-325.
- Brown D, Hafiz F, Glassmith L, et al. Consequences of manganese replacement of copper for prion protein function and proteinase resistance. *EMBO J* 2000 19(6):1180-1186.
- Gordon I, Abdulla EM, Campbell IC, Whatley SA. Phosmet induces up-regulation of surface levels of cellular prion protein. *Neuroreport* 1998 9(7):1391-1395.
- Wong BS, Chen SG, Colucci M, Xie Z, Pan T, Liu T, Sy MS, Gambetti P, Brown DR. Aberrant metal binding by prion protein in human prion disease. *J Neurochem* 2001 78:1400-1408.

About the Author:

Mark Purdey is a traditional mixed family farmer in the UK who successfully defeated the UK government's compulsory insecticide treatment order in the High Court of London in 1984. He writes, lectures and broadcasts on environmental health issues, whilst pioneering global ecodetective investigations into the causes of brain disorders, such as BSE. Mark's analytical studies have identified some "common toxic denominators" involved in the cause of BSE, and his published hypothesis is currently gaining support from studies conducted at US, Japanese and European universities.

The full text of Mark's article can be found on his website, <http://www.markpurdey.com>. It was originally published as "Educating Rida"—"Rida" being the Icelandic term for transmissible spongiform disease (TSE).

INCANDESCENT LIGHT THE HEALTHIER ALTERNATIVE?

The fact that incandescent light matches natural sunlight much better than any other types of lighting seems to support a small body of scientific and anecdotal evidence that it is the healthier option.

Part 1 of 2

by Inger Lorelei © 2003

Email: ingerlolelei@tiscali.se

Over the last couple of decades I've had a growing suspicion that fluorescent light may not be very good for our health, and that incandescent light may be much better. However, it was not until my training and work as an interior design colour consultant in the early 1990s that I learned that fluorescent light really is quite inferior in quality compared with incandescent light, and I have since spent much time trying to find out what else sets them apart.

So let's begin by looking at the technical differences between incandescent and fluorescent lamp types.

- The **incandescent light bulb**, Edison bulb or GLS (General Lighting System) lamp, consists, as most people probably know, of a glass bulb in which a spiralled super-thin tungsten filament is heated by electricity until it glows. It is kept glowing at a slow, even pace by the bulb having been emptied of air and instead often filled with an inert gas like argon. As implied by its name, this is a form of *firelight*—exactly the same natural element as in sunlight or candlelight, only concentrated and safely contained. This is the first reason why incandescent light may be healthier.

- The **halogen lamp** is a smaller, more compressed incandescent lamp made out of thick heat-resistant quartz glass into which a halogen (usually bromine) is added which creates a recycling process of the tungsten particles that makes the halogen lamp give about twice as much light and last 2–4 times longer than a standard GLS lamp. Besides the tiny low-voltage bulbs usually used in spotlights, fairy lights and car headlights, there are also mains-voltage lamps (that give only about 20% more light but don't require a transformer). These usually come in the form of a mini tube, but some of the newer ones have outer bulbs that resemble GLS bulbs and have the same kind of socket.

- The **fluorescent light-tube**, invented in the 1930s, is a glass tube filled with a gas like neon or krypton and some mercury vapour. At each end it has an electrode connected to ballasts in the fixture that rapidly turn them on and off to create a continual series of electrical discharges which make the mercury atoms produce an excess of energy in the form of ultraviolet (UV) light. This UV-C light is then turned into visible light by a combination of phosphors which form a fluorescent layer on the inside of the tube. *Synthetic* light is what I would call the product of this complicated process. Its main advantage is that it gives more light per watt than both GLS and halogen lamps.

- The **high-intensity discharge (HID)** lamp works in a similar way, but in most of these it is mainly the gas that produces the light directly. It is shaped like a mini tube or a large elliptical bulb that requires special fixtures and ballasts, and is often used outdoors.

Measuring the Differences

There are certain ways to measure the differences between the various types of lights.

- **Spectral Distribution (SPD)** refers to which wavelengths of the spectrum are present, and in what proportions, in the light from a given light source. This in turn determines both the colour of the light and its colour rendering capacity.

- **Colour Rendering Index (CRI)** is a measure of how accurately the colours of an illuminated object or surface can be seen compared with how they look under a reference light, and is usually divided into five categories of quality: CRI 90–100 is "accurate" (more or less); CRI 80–89 is considered "good" (or "fairly good"); CRI 60–79 gives moderate colour rendering; CRI 40–59 has poor colour rendering; and CRI 0–39 is very poor.

- **Correlated Colour Temperature (CCT)** is measured in degrees Kelvin (K). Just as a smith can tell what temperature the metal is by looking at the colour (the hotter it is, the

whiter), the colour of the light is determined in incandescent lamps by the temperature of the tungsten filament (which is around 2,700 K in GLS bulbs and up to 3,300 K in halogen lamps). In fluorescent and HID lamps, the colour and SPD are produced by the different colours of the phosphors and/or gases they contain (which, when added together in various combinations and proportions, appear to the eye as white, orange-white, pink-white or blue-white light) and the CCT that each colour type is designated is the one it visually most closely resembles. The temperature scale for light is often divided into four groups: 1,700–2,900 K is called "warm"; 2,900–3,300 K, "warm-white"; 3,300–5,000 K, "cool-white"; and 5,000–10,000 K, "daylight".

All incandescent lamps, including halogen, produce a top-quality golden-white light with perfect colour rendering capacity (CRI 100), since it has a *continuous* spectral distribution that is not fragmented like fluorescent light is. This is another reason why some of us believe incandescent light to be healthier.

Fluorescent Light Characteristics

Fluorescent light (FL) comes in many different colours and qualities, but despite so much effort being put into trying to copy the colour and quality of incandescent light and sunlight, most FL and HID lamps still produce a light that usually looks and feels more or less unnatural since it is not based on the element of *fire*. In a spectral power distribution chart, FL creates a ragged line with peaks at various individual wavelengths and drops in others.

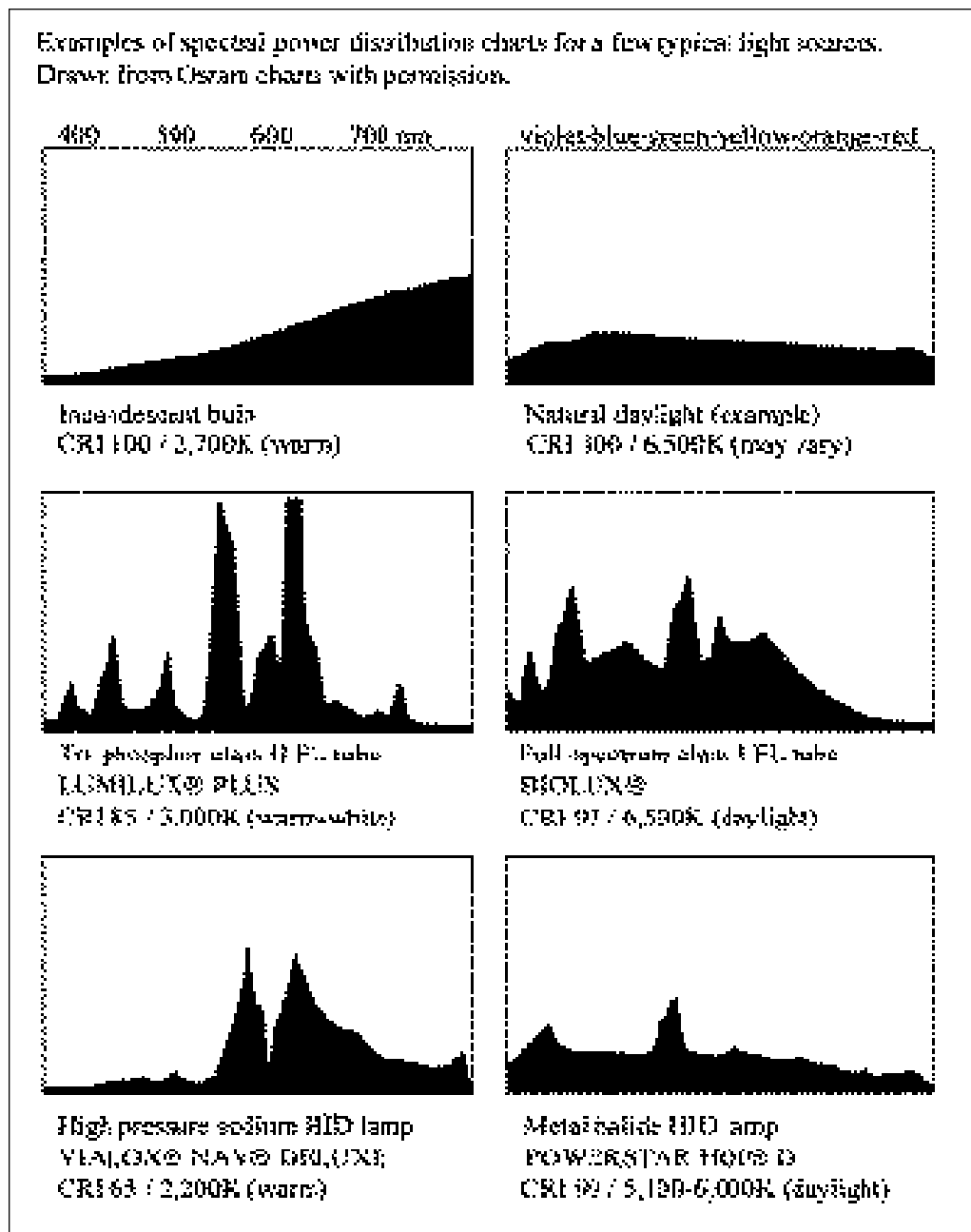
As the FL or HID lamp ages, its light becomes progressively weaker and even more cold and unnatural-looking because the phosphors that produce the red part of the light are exhausted before the ones that produce the green and blue parts. This means that even if a lamp keeps on functioning for, say, 16,000 hours, you may still need to replace it after only about 10,000–12,000 hours. Depending on the tube's quality, these characteristics may be more or less pronounced. FL can be divided into three groups:

- **Class III:** The basic halophosphate group includes the standard cool-white tubes with moderate colour-rendering capacity (CRI 60–76), and the warm (pink) tubes of even poorer quality (CRI around 50). These produce a bleak light that distorts colours, since they only reproduce some of the wavelengths of the spectrum. They have until recently been the most commonly used tubes, and in many countries still are, despite the fact that they are not even very economical to use.

- **Class II:** Tri-phosphor or three-band FL, including the new slim tubes with improved efficiency and the compact fluorescent, have better colour rendering (CRI 82–85) and usually come in warm to cool-white. They are gradually replacing the class III as the new standard tubes.

- **Class I:** Multi-phosphor or full-spectrum (FSFL) tubes and compact fluorescents usually come in daylight colour only, but some make them in warmer hues as well. These FSFLs have five phosphors, giving their light better spectral distribution and colour rendering (CRI 90–98)—although mainly in a fairly superficial way, since, like tri-phosphor FL, it is still a *composite* light. But just as you may produce an alloy that looks like silver or gold by mixing several non-precious metals, this does not *make* it silver or gold nor give it the same properties, of course.

The term *full spectrum* is really a misnomer. The only



artificial light sources that reproduce all the wavelengths of the visible spectrum are the incandescent bulb and the halogen lamp. Check this out for yourself, if you like, by doing your own spectral analysis with the back of a CD in a dark room.¹ First, turn on an incandescent lamp and you can see the whole visible spectrum perfectly reproduced and all the colours looking rich and luminous. Then turn on an FSFL instead and you will see the colours looking much more faded and the spectrum being fragmented by curious lines here and there which are actually gaps where certain wavelengths are missing. A class II lamp gives an even more distorted spectrum. Here you see clearly the three colours separated into distinct bands and how the red and the green overlap to produce yellow. The intermediate wavelengths are missing altogether.

The white or warm-white light from the new *indium-gallium-nitride* LED lamps is also a composite light produced by a combination of red, green and blue.

Problems with Flicker

If we all had our own or local power generator, we could be using low-voltage direct current (DC) everywhere and not just in cars. Instead, we have alternating current (AC), which is used to keep power lines from overheating and too much power being lost on the way when sending electricity over long distances. This use of high-voltage AC is something very unnatural. Naturally occurring AC fields are rare and usually weak.²

One of the problems with AC is that when it is used to power electric lights, the light intensity fluctuates in synchrony with it at twice the AC rate: 100 times per second in a 50 Hz power system (as in Europe and Australia) and 120 times per second in a 60 Hz system (as in North America).

In incandescent lamps, this modulation is fairly small because of the tungsten filament that keeps glowing between pulses; but in FL tubes powered by conventional magnetic ballasts, the variations are much bigger, resulting in continual flicker. This flicker is not seen by the eye until it slows down towards the end of the tube's lifespan, but may nevertheless be perceived subliminally by the body and the brain.

In a study on healthy people of various ages, Küller and Laike (1998) at the Lund Institute of Technology found that even though subjects couldn't actually see the flicker, many still preferred the non-flickering light source, and that about 40%, mostly younger and less addicted to alcohol and nicotine (indicating a more alert nervous system not dulled by age or intoxication), were more sensitive to flicker and reacted with decreased alpha brain-wave activity, increased speed and more errors in performance.³ They also mention other studies—such as the ones by Wilkins et al. (1989), linking flicker from FL to headache, eye strain and general stress; by Colman et al. (1976), finding that autistic children became more distracted and stuck in repetitive behaviour (a sign of stress or trance) under FL than under incandescent light; and by Zaccaria and Bitterman (1952), whose subjects preferred FL tubes powered by DC to those powered by AC.

But instead of solving the problems with flicker simply by

The only artificial light sources that reproduce all the wavelengths of the visible spectrum are the incandescent bulb and the halogen lamp.

using incandescent light instead or by switching back to DC (which could be done by a local converter), a new technology has been introduced during the 1990s: electronic high-frequency (HF) ballasts that increase the switching on-and-off rate from 100 or 120 to up to 60,000 times per second! This HF technique gives the impression of a more even light-flow, since it is so rapid that the FL does not have time to go out between pulses. It is now being used more and more in class I and II FLs, including most "energy-savers" (which, in that case, are marked "electronic" and light up gradually instead of with a flicker when you turn them on). Whether or not this HF light is really as good for us as manufacturers claim, remains to be seen.

Torkel Morgell, founder of the Stockholm Association for Ecological Technology (SET), says that all AC electricity disturbs the hydrogen atoms in the body and that speeding up the frequency doesn't exactly make it more restful or healthy.⁴

Electrical Hypersensitivity

Of the growing number of people who have become electrosensitive (ES) and experience various symptoms like eye irritation, skin rash, headache, dizziness, nausea, fatigue, breathing difficulty, irregular heart-beat, etc. when working with computers, most have a problem with fluorescent light too—FL, in fact, being the second most common source of complaint⁵—but often seem to feel okay with incandescent bulbs.

Two separate studies, at the National Institute for Working Life in Stockholm and Umeå respectively, found that the electrosensitives (ESs) they tested also seemed to be more *naturally* sensitive and reacted more strongly than others to flicker from FL or computer screens as well as to other sensory stimuli such as unexpected sound and touch.⁶

Unfortunately, however, some have over-interpreted these results—which appeared very conveniently just when the lighting industry was trying to promote the new HF technology—and now see HF ballasts as the solution to all ES problems.⁷ Roger Wibom, responsible for the Stockholm study, claims that when switching to HF-powered

lights, the ESs he tested had fewer symptoms and felt better,⁸ but all the electrosensitives whom I have talked to personally, as well as representatives of their organisation here in Sweden, FEB, say that they *don't* feel better with HF; some even suspect it of being the *cause* of their problems, since these started around the same time that HF was introduced in their offices.

Considering the fact that many ESs also react to cellphones, which clearly don't flicker, and to low-voltage halogen lamps, which due to their thicker tungsten filaments flicker even less than GLS lamps⁹ but instead have transformers that can radiate strong magnetic fields, there must certainly be other factors involved.

According to biochemistry professor Per-Arne Öckerman, MD, who, with more than 35 years' experience in medical research, has successfully been treating ES and other environment illnesses,¹⁰ there seems to be a strong connection to toxic overload in the body.¹¹ These toxins could in some cases *even come* from the FL tubes and computers themselves, since both may emit various

more or less harmful chemicals;¹² or could possibly come from mercury dental fillings—which, according to Friz-Uno Johansson, may leak mercury when exposed to magnetic fields.¹³

Since so many electrosensitives get skin reactions, I also wonder if in some cases this may not be a *photo-toxic* reaction (a hypersensitivity to light) that can be caused by some medical conditions,¹⁴ by perfume on the skin, and by certain anti-inflammatory, anti-depressive and antibiotic medicines¹⁵ that can temporarily make patients so hypersensitive to UV light that they cannot tolerate even the very tiny amount of harmless UV-A that windows let through or that standard office tubes emit. Since television and computer screens are also light sources (with LCD screens often being lit from behind by micro FLs or LEDs) and since many people use medicines and/or after-shave and skin-care products with perfume and are forced to work in FL all day, could there be a connection? I've also noticed how close to the computer most people sit. If you have a laptop, there isn't much choice, of course; but when the screen is separate, why not move it back quite a bit onto a separate table? You'd never dream of sitting that close to your TV, would you?

Mercury Vapour

Besides discovering in the 1970s that FL tubes emit radio waves (if not properly grounded) and low levels of X-rays from the cathode ends of the tubes, Dr John Ott claimed that they also leak mercury vapour.¹⁶ This could perhaps also explain why people who have been mercury poisoned by their dental fillings often become hypersensitive to FL, too.

If FL tubes still leak mercury vapour, the levels should, however, be significantly lower now, since modern tubes contain so much less mercury (3–5 mg in class I and II, and around 15 mg in class III tubes, according to leading manufacturers) compared with the old class III tubes, which could have as much as 50 mg.¹⁷ Some of the slim new class II tubes like the Philips TLD also have an extra protective layer on the inside of the tube to prevent mercury vapour from merging with the glass, since that affects the amount of light that gets through.¹⁸ Perhaps this also prevents any mercury from leaking out.

Incandescent lamps do not contain any mercury at all—only a little bit of lead at the bottom, but that's in a solid form which cannot be inhaled.

Full Spectrum Light

Even though I very much agree with most other things in Jacob Liberman's *Light: Medicine of the Future*,¹⁹ in Joseph Hattersley's article about full-spectrum light in NEXUS 8/04,²⁰ and in Simon Best's article about ADHD in NEXUS 8/06,²¹ and have no trouble accepting the possibility that class I FL may be less unhealthy than the old class III tubes—especially when used in radiation-shielded fixtures like the Ott bioLight—I do not agree with the opinion that "full spectrum" fluorescent light (FSFL) is the best artificial light there is. Nor with the idea that it is just as healthy as real sunlight and may be used to replace it. FSFL is still fluorescent and

mercury-based and has just about nothing in common with sunlight, except that some FSFLs are designed also to emit tiny amounts of extra UV-B. So citing studies that show the benefits of natural sunlight in no way proves that FSFL would be healthy, too.

To find out if FSFL is better, one must of course use it in one's studies, and this seems to have been done in quite a substantial number of cases. However, Jennifer Veitch (National Research Council, Canada) and Shelley McColl (Department of Psychology, McGill University, Montreal), who recently published two reviews of the relevant studies made between 1941 and 1999 regarding the effects of FSFL on perception and learning and on physiology and health, found that a surprisingly large number of the studies were not properly conducted and concluded that, with few exceptions, the best studies did *not* show FSFL to be more beneficial than the light from other common (usually FL) light sources.^{22,23}

In the very few cases where FSFL really has been found to be very effective, mainly on SAD (Seasonal Affective Disorder) and similar conditions, the same results have later been achieved with other bright lights, even coloured ones.²⁴ To have an anti-depressive effect, to "reset the biological clock", etc., it seems to be *brightness* rather than colour or spectral distribution that matters. So, early studies (e.g., by Rosenthal et al., 1984) that compared bright FSFL only with dim controls, either fluorescent or incandescent, do not prove that FSFL works and other lights don't—only that dim light is insufficient.²⁵

They also point out the fact that natural outdoor daylight, even on a cloudy day, may be more than 100 times brighter than the lighting indoors, that its colour temperature may vary between 5,000 K and 10,000 K depending on weather, season and time of day (and latitude, one might add), and that it is also polarised, which FSFL and other artificial lights usually are not.²⁶

Unlike myself, however, Veitch and McColl don't believe that lamp type matters much at all, and because *fewer than half a dozen* of the hundreds of studies that appear to have been done

on the effects of different light sources seem to have included incandescent lights, it is hard for me to "prove" that they are healthier, other than by logical deduction and so-called anecdotal reports. Since I've started to talk with people about light, I've been surprised to find such a large number of individuals who also prefer incandescent light and report feeling more or less ill or uncomfortable under FL. Tom Entwistle at the bioLight Group (formerly Ott bioLight) says that of the thousands of people they've interviewed about how they feel about FL tubes, 100% said they absolutely hate them!²⁷ However, despite my pointing this out, none of the lighting researchers I've talked to has shown the least bit of interest in including any kind of incandescent light in their studies!

Effects of Extra UV-B

As for potential health effects from adding a little extra UV-B to indoor lighting, a few of the studies reviewed by McColl and Veitch did seem to indicate a positive effect on the metabolism of

Besides discovering in the 1970s that fluorescent tubes emit radio waves (if not properly grounded) and low levels of X-rays from the cathode ends of the tubes, Dr John Ott claimed that they also leak mercury vapour.

vitamin D and thereby on calcium absorption and dental caries from using FSFL with extra UV-B; but since the amount of UV-B added was so small, McColl and Veitch consider it "negligible for people with outdoor exposure" and don't rule out other factors contributing to the effect.²⁸ Hopefully, future studies may bring further clarification.

If it can be firmly established that extra UV-B really is necessary, if it can be determined what dose is needed and are safe for each individual (since this may vary a lot depending on pigmentation, etc.), and if it can be proved that *artificial* fluorescent UV-B is as good as moderate doses of natural UV-B from the sun are said to be, then extra UV-B may be added to any artificial light source and need not come with FSFL only.

A tip for those who may want to try an FSFL tube with extra UV-B is to make sure to ask for specifics when you buy it, since some of the major manufacturers have now jumped on the "full spectrum" trend and are selling "health-promoting" FSFLs with "extra UV" that include only UV-A.

And if anyone would like to try an incandescent alternative to a fluorescent light-box for home treatment of SAD, I suggest using the (indirect) light from one or several 300-watt or 500-watt halogen floodlights, of the mains-voltage mini-tube type that comes in a rectangular light fitting and which can be bought at a low price in a hardware store. I find that, besides effectively "recharging one's batteries" if only it is bright enough, halogen light also has the advantage of looking and feeling very much like real sunlight.

Let me add here that halogen lights are now perfectly safe to use. It is correct that they produce a tiny bit of UV-A, UV-B and UV-C, and that the quartz glass that the bulbs are made of does not stop most of it like ordinary glass does. But since this was brought to the attention of the lighting industry in the early 1990s, virtually all halogen lamps sold today have a front glass that stops UV (and keeps the bulb from accidentally falling out and starting a fire) and/or an extra UV filter on the bulb itself that reduces all UV-C, all or most of the UV-B and about half of the UV-A. (If one would actually like it to give off more of the beneficial UV-B, I'm sure the filter could be modified to stop the UV-C only. Probably, however, it would still be so little that it wouldn't make much of a difference anyway.)

So the only thing one needs to think about is to keep these halogen lights out of reach of children, as they still do get very hot. Also, they can often be quite glary if not positioned correctly, unless used in one of those glare-free, state-of-the-art light fittings that dentists and surgeons use, which cost a fortune.

Colour Temperature

Although differences in colour temperature and spectral composition have not been found to have any significant effect on health and performance, they may still influence how you *feel*. Even if the intention was good, I think designing tubes to produce cold-coloured light was a great mistake. Let me clarify here that full-

spectrum light is not meant to imitate sunlight but, instead, the much cooler light of a cloudy or hazy summer's day, or a skylight from the opposite direction to the Sun on a clear day, since that has been found to be *visually* ideal, especially for tasks that require reading and distinguishing colours. But as you can see, both directly and in a spectral power distribution chart, it is not a perfect replication even of that, but more of a greenish-blue rather than like the balanced clear-white colour of real daylight.

But even if it were possible to reproduce the spectrum of daylight more accurately, would we really want to use it to work in all day? For if we are looking for a light that makes us feel better, is it not the warm glow of sunlight that so lifts one's spirit rather than the cold, gloomy light of a cloudy day? And if one is to go by what we may be adapted to in an evolutionary sense, isn't it

true that indoors, and during the dark part of the year and day, we are, as far as we know, historically used to the even warmer light from hearths, torches, oil lamps and candles?

Perhaps this is why most people spontaneously prefer the light of a warmer colour,²⁹ and may not be as comfortable in FSFL as some seem to think we should be. In a study by Küller and Wetterberg (1993), subjects experienced more discomfort under FSFL of daylight colour than under class II warm-white tubes and rated the social status of the room as much lower

when illuminated by the colder light—which confirmed the results of an earlier study (Küller, 1982) that showed office workers reporting more visual complaints when exposed to the FSFL than under standard class III white tubes and finding the daylight colour "unpleasant and cool", especially at night.³⁰ Many of the other studies reviewed by Veitch and McColl showed similar results. Even in the few cases where FSFL was actually preferred, they point out the very likely possibility that it might be due to the better colour rendering rather than the colour of the light.³¹

But to be of good quality, a light does not necessarily have to be so cold. If one wants to use FSFL, there are other class I tubes with equally high CRI that give a warmer light. And as shown earlier, incandescent light reproduces colours better than even the best FSFL.

I'll admit, though, that incandescent light, at the luminance levels usually used indoors, does give colours a bit of a golden shimmer compared with how they look in daylight; but in my opinion, that only looks natural and appealing especially when it falls on and enhances the warm colours of most natural materials and living beings as well as on the predominantly warm colours with which most of us seem to prefer to surround ourselves.

So why, then, are so many designers, architects and others constantly trying to promote both light and colours that are unnaturally cold and bright, as well as cold and hard materials and sharp geometric shapes? Even if some of the best designs may be interesting to look at, does anyone really want to live or work in something that is both designed and lit like a morgue? Or use a light that makes our skin tone look as if we belong in one?

Even the *neodymium light bulb*, which some recommend as an

Although differences in colour temperature and spectral composition have not been found to have any significant effect on health and performance, they may still influence how you *feel*.

incandescent daylight alternative, feels a bit odd to me because of the very unnatural purple-white hue that the neodymium coating creates. According to Sylvania, this lamp was designed primarily for plants, which are said to grow more lushly in red-blue light.

I would also like to comment on a couple of things in Dr Jacob Liberman's otherwise very enlightening book that I feel he may have misunderstood about the colour of incandescent light (and I hope he won't mind if I do).

On page 146, he expresses his concern that the warm colour of incandescent light might be unhealthy for humans, based on Dr John Ott's experiments where wavelengths in the orange-pink-red range caused serious health problems in animals.³² These often quite horrible effects were, however, not produced by incandescent light but by *monochromatic* light. That being exposed to one single wavelength (colour) at a time—which, as Dr Liberman himself describes, can also be therapeutically beneficial in limited doses—may be harmful for animals and possibly for humans, too, if used for a prolonged period of time, has nothing at all to do with incandescent light.

On page 145, Dr Liberman claims that "most light bulbs give off gross distortions of the visible light spectrum, emitting strong peaks of light energy in the yellow, red and infrared portions of the spectrum", and he calls this "*highly unnatural*" (his emphasis).³³ As for the infrared part, both sunlight and candle-

light produce much heat, too (as does FL, although not quite as much). But what's wrong with that? Isn't infrared as much a part of a "complete" spectrum as ultraviolet? And in an SPD chart, incandescent light does *not* produce peaks at various individual wavelengths as FL (including FSFL) does, but, instead, produces a soft-flowing *curve* since it has a continuous spectrum, just like sunlight, and is warmer, more golden in colour (with emphasis in the warm end of the spectrum) mainly because its luminance is so much lower. Sunlight, too, is whiter in the daytime and gets warmer towards the evening as it becomes less bright, right? If you compare, for example, a 100-watt light bulb with a 25-watt bulb, or have a dimmer that you turn down, you can see that the brighter the light is, the whiter it looks. What could be more natural than this?

So, since the colour temperature seems to adjust itself automatically in incandescent light to suit the situation perfectly—and gets whiter and more activating when you turn it up, and warmer and more relaxing when you turn it down, why meddle with the spectral composition at all? Why not just use a combination of bright incandescent light and real daylight for work/in the daytime, and then use softer incandescent light—or even candlelight if you feel like it—for leisure/at night?

Continued next issue...

Endnotes

Thanks to the following for providing technical information: Professor Liljefors, Royal Institute of Technology, Stockholm; Clas Tegenfeldt, BEMI, Linköping; and Osram, Philips Lighting, Sylvania Luminance, Thorn Lighting and The Swedish Energy Authority. Thanks also to Richard Küller, Jennifer Veitch and everyone else who has supplied items of information.

1. Suggested by Patrick Lindahl in personal communication, July 2002.
2. Knauppi, M., "Elektromagnetisk smog", *2000-Talets Vetenskap* 2/99.
3. Küller, R. and Laike, T. (1998), "The impact of flicker from fluorescent lighting on well-being, performance and physiological arousal", *Ergonomics* 41(4):433-447.
4. Personal communication with Torkel Morgell, December 2001.
5. Sandström, M., Bergqvist, U., Küller, R., Laike, T., Ottosson, A. and Wibom, R., "Belysning och hälsa" ("Lighting and health"), *Vetenskaplig skriftserie* 2002:4, Arbetslivsinstitutet (National Institute for Working Life), Stockholm.
6. *ibid.*
7. "Fyra frågor om lågenergilampor" ("Four questions about energy savers"), *Energimyndigheten*, Eskilstuna, 1999.
8. Personal communication with Roger Wibom, December 2001.
9. Sandström et al., *ibid.*
10. See <http://www.papimi.gr/cases/ockerman/ockerman2.htm>.
11. Öckerman, P.A. (Prof.), Gothenburg, in: *Elektromagnetiska fält och människan* (*Electromagnetic fields and man*), video by

- Bo Harringer, Medieteknik, Göteborg, 1999.
12. "Noll risk i IT-miljön" ("Zero risk in the IT environment"), brochure by Svenska Industritjänstemannaförbundet, 1999.
13. Nordén, A. and Johansson, F.-U., "Geopatisk stress och samband med sjukdomar" ("Geopathic stress and disease"), *2000-Talets Vetenskap* 2/96.
14. McColl, S.L. and Veitch, J.A. (2001), "Full-spectrum fluorescent lighting: a review of its effect on physiology and health", *Psychological Medicine* 31:949-964.
15. Swedish Pharmaceutical Information Service, Apoteksbolaget AB.
16. Ott, J.N. (1985), "Color and Light: Their Effects on Plants, Animals and People", *Journal of Biosocial Res.* 7, pt I, in: Liberman, J., OD, PhD, *Light: Medicine of the Future*, Bear & Co., Santa Fe, New Mexico, 1991, p. 146.
17. "Fyra frågor om lågenergilampor" ("Four questions about energy savers"), *ibid.*
18. Letter from Emil Welin, Philips Lighting, Sweden, June 11, 1999.
19. Liberman, *ibid.*
20. Hattersley, J. (1995, 2001), "The Healing Power of Full-Spectrum Light", *NEXUS* vol. 8, no. 4, 2001.
21. Best, S. (2000), "A Nutritional Approach to Treating ADHD", *NEXUS*, vol. 8, no. 6, 2001.
22. Veitch, J.A. and McColl, S.L. (2001), "A critical examination of perceptual and cognitive effects attributed to full-spectrum lighting", *Ergonomics* 44(3):255-279.
23. McColl, S.L. and Veitch, J.A. (2001), "Full-spectrum fluorescent lighting: a review of its effect on physiology and health", *Psychological Medicine* 31:949-964.

24. Veitch and McColl, *ibid.*
25. McColl and Veitch, *ibid.*
26. Veitch and McColl, *ibid.*
27. Personal communication with Tom entwistle, December 2001.
28. McColl and Veitch, *ibid.*
29. "Belysning inomhus: riktlinjer & rekommendationer" ("Indoor lighting: guidelines & recommendations") *Ljuskultur*, Stockholm, 1984, 1990.
30. Küller, R., LicPhil, DsC, and Wetterberg, L., MD, PhD (1993), "Melatonin, cortisol, EEG, ECG and subjective comfort in healthy humans: Impact of two fluorescent lamp types at two light intensities", *Lighting Res. Technol.* 25(2):71-78; Küller, R. in: Küller M. (ed.), *Miljöpsykologiska Monografier* (Environmental-psychological Monographs) 2(0):37-44, The Lund School of Architecture, Lund Institute of Technology, 1982.
31. Veitch and McColl, *ibid.*
32. Ott in Liberman, *ibid.*,
33. Liberman, *ibid.*, p. 145.

About the Author:

Inger Lorelei was born in 1961 in Sweden, where she still lives. She has trained and worked as a personal colour consultant and also as an interior design colour consultant, having studied colour and lighting at the Scandinavian Colour Institute in Stockholm. She has created her own Harmonious Colour Combination System and used it with much success. Though currently retired, she spends her time researching and writing about her favourite topics. Inger can be contacted by email at ingerlolelei@tiscali.se.

THE SCHUMANN'S RESONANCES AND HUMAN PSYCHOBIOLOGY

by Richard Alan Miller and
Iona Miller © 2002, 2003

PLANETARY RHYTHMS AND HUMAN HEALTH

Lewis B. Hainsworth of Western Australia seems to be the first researcher to recognise the relationship of brain-wave frequencies to the naturally circulating rhythmic signals, known as Schumann's resonances (SR), in the space between the surface of the Earth and the ionosphere. Hainsworth imparted this awareness to Dr Robert O. Becker, noted electromagnetics pollution expert, and to Harvard neurologists as early as 1975.

In 1977, this phenomenon—the relationship between brain-wave rhythms and the spectrum of the natural Earth ELF (extremely low frequency) signals—became the basis for Itzhak Bentov's *Stalking the Wild Pendulum* (Dutton, 1977). Later research confirmed a relationship to human health and well-being and even to ESP or psi phenomena.

Hainsworth sent up a clarion cry against hazardous EM (electromagnetic) pollution, whose dangers pale in comparison to the threat of technologies such as HAARP [High-frequency Active Auroral Research Program], which sends violent pulsations into the Earth's ionosphere, potentially disrupting the entire electromagnetic shield of the planet and certainly affecting the whole biosphere and thus human welfare in general.

Some research has suggested that the frequency of the basic Schumann's resonance has recently been rising in value, possibly threatening the whole biosphere, human welfare and our evolutionary future. All biological processes are a function of electromagnetic field interactions. EM fields are the connecting link between the world of form and resonant patterns. They store gestalts or patterns of information. The bridge connecting solar system resonances and brain frequencies resides in our human DNA helix, which co-evolved in the Earth's environment.

Electrical engineer Lewis B. Hainsworth, MA, was among the first to suggest that human health is linked with geophysical parameters by way of the naturally occurring Schumann's ELF. His hypothesis identified naturally occurring features which determine the frequency spectrum of human brain-wave rhythms:

The frequencies of naturally occurring electromagnetic signals, circulating in the electrically resonant cavity bounded by the Earth and the ionosphere, have governed or determined the 'evolution' or development of the frequencies of operation of the principal human brain-wave signals. In particular, the alpha rhythm is so placed that it can in no circumstances suffer an extensive interference from naturally occurring signals.

... the alpha rhythm is so placed that it can in no circumstances suffer an extensive interference from naturally occurring signals.

Hainsworth concluded that the frequencies of human brain-waves evolved in response to these signals. If his hypothesis is correct, conditions for evolutionary changes in human brain-wave patterns have now been established. Furthermore, variations in these patterns can produce mild to disastrous health and behavioural changes.

The nature of the applied stimulus makes it difficult to identify the responses directly, as they are most likely to occur in the form of stress-related conditions. They will therefore show up as drastic increases in mental disturbance, antisocial behaviour, psychosomatic conditions and neurological disturbances. Some electrical field phenomena have already been linked with abnormal cell growth and a decrease in immunocompetency.

All these factors could be expected to lead to the appearance of "new" diseases, probably accompanied by a decline in resistance to many minor infections, an increase in conditions related to abnormal cell development, including cancer, birth defects and infertility, and an increase in psychological disturbance problems, e.g., drug addiction and suicide.

These existing psychobiological problems could be expected to increase in scale, but could be studied for deviations from "normal" alpha cycles of 10.4 Hz, with detectable changes in psychological characteristics and mental abilities.

Hainsworth therefore strongly urged that research into widespread measurements of the natural SR signals' frequency variations and field strengths be carried out and compared with statistics for the incidence of heart attacks, suicide attempts, road accidents, social violence, domestic accidents, crimes,

etc. Studies are often conducted in this inferential way (such as those by Krippner and Persinger), searching correlations between the phenomena of Earth lights and tectonic strain and reports of UFO sightings, abduction reports and other anomalous psychophysical experiences for an electromagnetic connection to temporal lobe seizures.

We strongly suggest that correlations of broad changes in the modulations of SR be studied in relationship to microwave radiation, ELF signals and HAARP for both immediate and long-term consequences. We have discussed elsewhere the obvious ramifications of such EM pollution and 10–50 Hz modulations on the human system (Miller & Miller, "Synthetic Telepathy", 2001).

We have also discussed the benefits for human well-being and relaxation from entraining with these natural rhythms (*The Diamond Body*, 1981). When a person is deeply relaxed, slow rhythmic sine-wave patterns can be detected in both the EEG and the heart/aorta resonance oscillator in the 7–8 Hz range. Resonance occurs when the natural vibration frequency of a body is greatly amplified by vibrations at the same frequency from another body.

Oscillators alter the environment in a periodic manner. Thus, standing waves in the body, whether during meditation/relaxation or

not, can be driven by a larger signal. Progressively amplified waveforms, created by resonance, result in large oscillations entraining other circuits in the body tuned to those frequencies. A hierarchy of frequencies thus couples our psychophysical selves to the harmonic frequency of the electrical charge of the Earth, which naturally pulses at the same frequencies. This is hardly a coincidence, as we are adaptive products of our environment.

Our planet is surrounded by a layer of electrically charged particles called the *ionosphere*. The lower layer of the ionosphere is roughly 60–80 kilometres (40–50 miles) from the crust, and this charged layer is known to reflect radio waves. Bombardment by HAARP signals "pushes" out this boundary layer, thus altering the natural, pulsating rhythm. Natural fluctuations in frequency occur daily, by the lunar month, and in response to solar flares.

Since the ionosphere is a highly charged layer, it forms a so-called *capacitor* with the Earth. This means that there is a difference in electrical potential between the two, the Earth being negatively charged and the ionosphere being positively charged. This potential varies somewhat, but is around 200 volts per metre. This is a fundamental type of electrical generator. The solar winds, interacting with the upper atmosphere rotation, act as the collector and brushes of a generator. The lower atmosphere can be seen as a storage battery for this gradient potential.

This electromagnetic field around the Earth can be viewed as a stiff jelly. When our bodies move and vibrate, these movements are transmitted to the environment, and vice versa. These fields not only impinge on our bodies, they also affect the charges inside our bodies. When we are standing on the ground, under normal conditions, we are grounded. Our body then acts as a sink for the electrostatic field and actually distorts the force-lines somewhat. The human body also has its own electrostatic field about itself.

These field lines are the result of the various biochemical reactions in the body. This resultant bio-field couples us to the iso-electric field of the planet (Miller & Miller, 1981).

In 1957, German physicist Dr W. O. Schumann calculated the Earth/ionosphere cavity resonance frequencies (which were named after him). He fixed the most predominant standing wave at about 7.83 Hz.

A "tuned system" consists of at least two oscillators of identical resonant frequencies. If one oscillator starts emitting, the other will be activated by the signal very shortly, in the process of resonance, entrainment or kindling (igniting the resonance phenomenon among the neurons). It becomes obvious that in deep meditation, when waves of alpha and theta rhythms cascade across the entire brain, a resonance is possible between the human being and the planet. Energy and information which are embedded in a field are transferred. Perhaps the planet communicates with us in this primal language of frequencies.

According to Hainsworth, the influence of naturally occurring Schumann's resonance signals on brain-wave pattern evolution is formally stated to show that low-power electrical fields could produce evolutionary change. The electrical fields produced by modern electro-technology are then possible sources of evolutionary change. The characteristics of some forms which might result should be considered. Some fields might inhibit survival of existing forms.

Because of lack of available data, precise measurements are lacking and must therefore be quantitatively valueless. Technology not only will change, but *is* changing, human evolution. Only extensive investigation of the naturally occurring signals will give any lead in showing what results might occur.

The possibility exists that human health is linked with geophysical parameters by way of the naturally occurring Schumann's resonances. A number of attempts have been made to discover the correlation through geomagnetic and ionospheric storms. The correlation comes through the biological fact that the human system is apparently sensitive to such low-power ELF signals. We don't know what the range of such a correlation might be.

The frequency values of the SR signals are determined by the effective dimensions of the cavity between the Earth and ionosphere. Thus, any events which change these dimensions will change the resonant frequencies. As Hainsworth warned, "such events could be ionospheric storms, and could even result from a *man-made ionospheric disturbance*" (emphasis added).

Geomagnetic storms are the magnetic changes produced by ionospheric storms, and are thus associated with conditions capable of changing the SR signals. However, although such storms can produce these changes, measurement of these

parameters cannot give any indication of whether the resonance signals have changed to a value outside their normal range or not. Since the undisturbed state of the ionosphere corresponds to the normal SR patterns, then ionospheric disturbances are likely to produce abnormal patterns, but will not necessarily do so in all cases. If biological response is linked to Schumann's resonance signals, this will reduce any apparent link with geomagnetic or ionospheric data.

Trying to determine the relationships between geophysical and biological conditions can become extremely complex. The frequencies of the SR signals change with ionospheric conditions. These conditions change diurnally, seasonally and with variations in solar activity, which, in turn, varies with the 11-year sunspot cycle and also with the 27–29-day lunar cycle, mainly during sunspot minimum periods. Lunar tidal changes in the height and thickness of the layers could also sometimes affect the cavity dimensions and hence the Schumann's frequencies. So can powerful ELF signals from HAARP.

It should be borne in mind that if some signal conditions are harmful, then other conditions might be beneficial. This means that if, for example, seasonal and tidal conditions have resulted in the signals being in a biologically disturbing state, then the advent of a solar flare could result in changes in the signals, bringing them into a biologically beneficial state. The converse could also occur.

If we are sensitive to ELF signals, then when these factors are considered we would expect to get confusion if we try to link any effect with geophysical changes. For instance, there could be incidences of classic states of "lunacy" in some years if damaging signals coincided with full moons, then in other years the observations and analyses would show that the effects were not lunar.

An analysis of the correlation between the incidence of ionospheric disturbance and rate of admission to Heathcote Hospital (Perth, Western Australia) for about a three-year total indicated that when a disturbance occurred then the admission rate changed. The probability

The possibility exists that human health is linked with geophysical parameters by way of the naturally occurring Schumann's resonances.

NEWSCIENCE NEWSCIENCE NEWSCIENCE

of the association being random was of the order of 2000:1 against. However, the fact that sometimes the rate went up and sometimes down showed that ionospheric storms changed the rate of incidence of mental disturbance in a way that is consistent with that change being dependent on the actual causes being linked to variations in the Schumann's resonance signals. At that point, Hainsworth decided to concentrate on trying to get some observational work going on measuring the SR signals.

Hainsworth's set-up used a 2,000-turn, 1-metre-square antenna, and another of 1/3-metre square, plus amplifiers to handle signals from 0 to 30 Hz. His amplified Schumann's signals were analysed in a laboratory. On one occasion the signal dropped to zero amplitude when a solar flare occurred, and did not start recovering for about an hour and a half afterwards. It was originally just under 7 Hz and came back at only just over 6 Hz. His next step would have been to develop a wave analyser to try to pick out individual signals. But the failing health of both himself and his wife prevented this.

The value of proceeding with his seminal work has now increased many-fold due to the threat from the proposed US Missile Defense Shield. This is the offspring of the United States' HAARP program in Alaska, whose *raison d'être*, or mission statement, allegedly dealing with national security, is vague if not purposefully misleading.

EM FREQUENCIES AND HUMAN RESPONSE

Hainsworth posed a series of questions, all of which are answered with a resounding "yes". This should lead us in the direction of extreme caution towards introducing new EM or ELF sources and ionospheric changes in our environment. He presented his data in two papers (referenced at the end of this article and posted on the website <http://www.nwbotanicals.org>). His questions are as follows:

1. Does the human biological system contain, use or generate any forms of electrical signal?
2. Does it respond to any of these signals?
3. Does it respond to audible signals at these frequencies?
4. Does it respond to optical signals at these frequencies?
5. Do human signals change with psychological or mental states, such as stress or problem solving?
6. Does the human system respond to any very, very low-power electromagnetic signals?

Brain waves have only been studied since about the mid-1920s, and the signal form that is apparently most widely known and identified is the alpha rhythm. The frequency of this signal varies from individual to individual, but it lies between about 7–8 Hz and 12 Hz, with an average value of 10.5 Hz. Theta and beta rhythm signals also occur, and are identifiable by EEG below the 8 Hz and above the 12 Hz frequencies. Since the discovery and measurement of these signals, a great deal of effort has been devoted to trying to work out how they originated in the first place and what determines their frequencies of operation.

In the early to mid-1950s, Schumann (a geophysicist almost certainly uninterested in neurology) suggested that electromagnetic signals might circulate at extremely low frequencies in the electrically resonant cavity between the Earth and the ionosphere. He was right. The signals came to be called "Schumann's resonances". One major component was originally predicated at a frequency of

about 10 Hz. In 1959 it was measured to be slightly different. Meanwhile, the military co-opted the discovery for using ELF signals for submarine communications.

In fact, the first mode of these circulating signals has an average value of 7.8 Hz, with a typical diurnal range of from 7.2 to 8.8 Hz, and the second mode has an average value of 14.1 Hz and a range of from 13.2 to 15.8 Hz. These match the brain-wave theta rhythm and beta rhythm nicely. The blank range between the two modes is a very reasonable match with the normal frequency range of the human alpha rhythm, between 8 to 12 Hz or cycles.

Additionally, it was found that there is minimum (zero) power circulating in the Earth/ionosphere cavity at 10.4 Hz—which is virtually an exact match for the average value of the alpha rhythm. Hainsworth points out that the existence of these natural signals and the close relationship of their frequencies of oscillation were facts unknown to senior neurologists and mental health specialists as late as 1975.

Hainsworth argued that up to the end of 1979, no long-term systematic measurements of any great value were being made of the Schumann's resonance signals. Measurements were being made only intermittently for the purpose of obtaining research data for use by post-graduate geophysicists in constructing esoteric mathematical models of the ionosphere. It follows from this that, until long after the end of 1979, no figures on these signals were available. Consequently, no "expert" can produce numerical evidence to support an objection to Hainsworth's original hypothesis, since the only numerical values available are those favouring it.

However, Hainsworth left us with some open-ended questions:

7. Has any evidence ever been obtained to indicate that the human system is totally unaffected by externally applied electromagnetic fields?
8. Have any measurement programs ever been attempted to show whether the human system is (a) totally unaffected, (b) always affected, or (c) sometimes affected by naturally [or artificially] occurring electromagnetic signals?
9. Has the existence of such signals, having a close relationship with human biological signal frequencies, been known for many years?



10. Have those relationships been studied with adequate protocols in any detail?

Schumann's resonances are actually observed, by experiment, occurring at several harmonic frequencies between 6 and 50 cycles per second (one cycle equals one hertz). Specifically they are found at 7.8, 14, 20, 26, 33, 39 and 45 Hz, with a daily variation of around ± 0.5 Hz.

Only as long as the properties of Earth's electromagnetic cavity remain about the same do these frequencies remain the same. Cycles may vary somewhat due to ionospheric response to solar cycle activity and properties of the atmosphere and magnetosphere. Projects, such as HAARP, which heat up or blast out the ionosphere pose a potential threat of catastrophic proportions to this interactive system.

MEASURING BRAIN WAVES BY EEG

The resonant cavity formed between the ionosphere and the Earth produces rhythmic waves capable of entraining and phase-locking with brain waves.

Even at the turn of this millennium, Hainsworth (now deceased) seems to have been unfamiliar with extensive work in brain-wave research in neurology, hypnotherapy, biofeedback and neural feedback. This research includes extensive experiments in frequency-following response (FFR) and relating brain waves and brain-wave deficiencies to psychobiological states.

The brain is a massive source of ELF signals that get transmitted throughout the body through the nervous system, which is sensitive to magnetic fields. Brain waves and natural biorhythms can be entrained by strong external ELF signals, such as stationary waves at Schumann's resonances. Entrainment, synchronisation and amplification promote coherent large-scale activity rather than typical flurries of transient brain waves. Thus, resonant standing waves

emerge from the brain, which under the right conditions facilitates internal and external bio-information transfer via ELF electromagnetic waves. These SR waves exhibit non-local character and nearly instant communication capability.

The EEG (*electroencephalograph*) measures brain waves of different frequencies within the brain. *Rhythmicity* in the EEG is a key variable in the coordination of cortical activity. Electrodes are placed on specific sites on the scalp to detect and record the electrical impulses within the brain. *Frequency* is the number of times a wave repeats itself within a second. It can be compared to the frequencies on a radio. *Amplitude* represents the power of electrical impulses generated by the brain. *Volume* or *intensity* of brain-wave activity is measured in microvolts.

Raw EEG frequency bands include *gamma* (25–60 Hz); *beta* (12–25 Hz); *alpha* (7–12 Hz); *theta* (4–7 Hz); and *delta* (less than 4 Hz). Their ranges overlap one another along the frequency spectrum by 0.5 Hz or more. These frequencies are linked to behaviours, subjective feeling states, physiological correlates, etc. Clinical improvement with EEG biofeedback is traceable to improved neuroregulation in basic functions by appeal to their underlying rhythmic mechanisms.

Schumann's resonance forms a natural feedback loop with the human mind/body. The human brain and body developed in the bios-

phere, the EM environment conditioned by this cyclic pulse. Conversely, this pulse acts as a "driver" of our brains and can also potentially carry information. Functional processes may be altered and new patterns of behaviour facilitated through the brain's web of inhibitory and excitatory feedback networks. Functional processes may be altered and new patterns of behaviour facilitated through the brain's web of inhibitory and excitatory feedback networks.

The brain has its own set of vibrations it uses to communicate with itself and the rest of the body. EEG equipment distinguishes these waves by measuring the speed with which neurons fire in cycles per second. At their boundaries these waves can overlap somewhat, merging seamlessly into one another—so different researchers may give slightly different readings for the range of cycles per second (Hz). The rate of cycling determines the type of activity, kindling wave after wave over the whole surface of the brain by igniting more neurons.

The frequency bands and wave characteristics are described as follows:

- **Gamma** waves (25–60 Hz) appear to relate to simultaneous processing of information from different brain areas, e.g., involving memory, learning abilities, integrated thoughts or information-rich task processing. Gamma rhythms modulate perception and consciousness, which disappear with anaesthesia.

Synchronous activity at about 40 Hz appears involved in binding sensory inputs into the single, unitary objects we perceive.

- **Beta** waves (12–25 Hz) dominate our normal waking state of consciousness when attention is directed towards cognitive tasks and the outside world. Beta is a "fast" activity, present when we are alert or even anxious, or when engaged in problem solving, judgement, decision making, information processing, mental activity and focus. Nobel Prize winner Sir Francis Crick and other scientists

believe the 40 Hz beta frequency may be key to the act of cognition.

- **Alpha** waves (7–12 Hz) are present during dreaming and light meditation when the eyes are closed. As more and more neurons are recruited to this frequency, alpha waves cycle globally across the whole cortex. This induces deep relaxation, but not quite meditation. In alpha, we begin to access the wealth of creativity that lies just below our conscious awareness. It is the gateway, the entry point that leads into deeper states of consciousness. Alpha waves aid overall mental coordination, calmness, alertness, inner awareness, mind/body integration and learning.

Alpha is also the home of the window frequency known as the SR, which propagates with little attenuation around the planet. When we intentionally generate alpha waves and go into resonance with that Earth frequency, we naturally feel better, refreshed, in tune, in synch. It is, in fact, environmental synchronisation.

- **Theta** waves (4–7 Hz) occur most often in sleep but are also dominant in the deepest states of meditation (body asleep/mind awake) and thought (gateway to learning, memory). In theta, our senses are withdrawn from the external world and focused on the mindscape—internally originating signals. Theta waves are associated with mystery, an elusive and extraordinary realm we can explore. It is that twilight state which we normally only experience fleetingly as we rise from the depths of delta upon waking or drifting off to

The resonant cavity formed between the ionosphere and the Earth produces rhythmic waves capable of entraining and phase-locking with brain waves.

sleep. In theta, we are in a waking dream; vivid imagery flashes before the mind's eye and we are receptive to information beyond our normal conscious awareness. Theta meditation increases creativity, enhances learning, reduces stress and awakens intuition and other extrasensory perception skills.

- **Delta** waves (0–4 Hz) are the slowest but highest in amplitude. They are generated in deepest meditation and dreamless sleep. Delta waves confer a suspension of external existence and provide the most profound feelings of peace. In addition, certain frequencies within the delta range trigger the release of a growth hormone which is beneficial for healing and regeneration. This is why sleep, deep restorative sleep, is so essential to the healing process.

Rhythm & Harmonic Resonance

There is a harmonic relationship between the Earth and our mind/body. Earth's low-frequency iso-electric field, the magnetic field of the Earth and the electrostatic field which emerges from our body are closely interwoven. Our internal rhythms interact with external rhythms, affecting our balance, REM patterns, health, and mental focus. SR waves probably help regulate our bodies' internal clocks, affecting sleep/dream patterns, arousal patterns and hormonal secretion (such as melatonin).

The rhythms and pulsations of the human brain mirror those of the resonant properties of the terrestrial cavity, which functions as a waveguide. This natural frequency pulsation is not a fixed number, but an average of global readings, much like the EEG gives an average of brain-wave readings. SR actually fluctuates, like brain waves, due to geographical location, lightning, solar flares, atmospheric ionisation and daily cycles.

The most important slow rhythm is the daily rhythm sensed directly as the change in light. Rhythms connected with the daily rhythm are called *circadian* (an example is pineal gland melatonin secretion). Some experiments in the absence of natural light have shown that the basic human "clock" is actually slightly longer than one day (24 hours), and closer to one lunar day (24 hours 50 minutes).

On a slower scale, a strong influence on the Earth is its geomagnetic field, which is influenced by the following periods: the Moon's rotation (29.5 days); the Earth's rotation (365.25 days); sunspot cycles (11 or 22 years); the nutation cycle (18.6 years); the rotation of the planets (88 days to 247.7 years); and the galaxy's rotation cycle (250 million years). Very important rhythms, like hormone secretion and dominant nostril exchange, are in the order of 1–2 hours. In the range of human EEG, we have the Sun's electromagnetic oscillation of 10 Hz, while the Earth/ionosphere system is resonant at frequencies in the theta, alpha, beta-1 (low or slow) and beta-2 (high or fast) bands.

Different species often have internal generators of environmental rhythms, which can be extremely precise, up to 10^4 . The frequency of these oscillators is then phase-locked-loop (PLL) synchronised with the natural rhythms. Environmental synchronisation sources are often called *zeitgebers*. The mechanism of optical synchronisation can be shown. The presented rhythms should inspire a better understanding of the interaction of internal and external rhythms during specific states of consciousness.

**Earth's low-frequency
iso-electric field, the
magnetic field of the Earth
and the electrostatic field
which emerges from our body
are closely interwoven.**

The bioelectrical domain is geared to thalamocortical generation of rhythmic activity. In neurofeedback, what is being trained is the degree of rhythmicity of the thalamocortical regulatory circuitry. Rhythmicity manages the entire range of activation and arousal in the bio-electrical domain. One role advocated for rhythmic activity is that of *time binding*: the need for harnessing brain electrical activity, which is spatially distributed, while maintaining it as a single entity.

Brain waves indicate the arousal dimension, and arousal mediates a number of conditions. Changes in sympathetic and parasympathetic arousal "tune" the nervous system. Underarousal leads towards unipolar or reactive depression, attention deficit disorder, chronic pain and insomnia. Overarousal is linked with anxiety disorders, sleep onset problems, nightmares, hypervigilance, impulsive behaviour, anger/aggression, agitated depression, chronic nerve pain and spasticity. A combination of underarousal and overarousal causes anxiety and depression as well as ADHD.

Instabilities in certain rhythms can be correlated with tics, obsessive-compulsive disorder, aggressive behaviour, rage, bruxism, panic attacks, bipolar disorder, migraines, narcolepsy, epilepsy, sleep apnoea, vertigo, tinnitus, norexia/bulimia, suicidal ideation and behaviour, PMS, multiple chemical sensitivities, diabetes, hypoglycaemia and explosive behaviour.

The brain responds to inputs at a certain frequency or frequencies. The computer can create wave-form patterns or certain frequencies that compare with the mind's neural signals in terms of mind patterns. If people can control their mind patterns, they can enter different states of being (mental relaxation, study, etc.).

So what happens when the mind is entrained with a sound or vibration that reflects the thought patterns? When the mind responds to certain frequencies and behaves as a resonator, is there a harmonic frequency that the mind vibrates to or can attune to? What does the study

of harmonic resonance, sound or vibration have to do with the brain's frequency waves?

Sound waves are examples of periodicity, of rhythm. Sound is measured in cycles per second (hertz or Hz). Each cycle of a wave is, in reality, a single pulse of sound. The average range of hearing for the human ear is somewhere between 16 Hz and 20,000 Hz. We cannot hear extremely low frequencies, but we can perceive them as rhythmic.

Entrainment is the process of synchronisation, where vibrations of one object will cause the vibrations of another object to oscillate at the same rate. External rhythms can have a direct effect on the psychology and physiology of the listener. Slower tempos from 48 to 70 BPMs have been proven to decrease heart and respiratory rates, thereby altering the predominant brain-wave patterns.

Binaural beats are continuous tones of subtly different frequencies, delivered to each ear independently in stereo via headphones. If the left channel's pitch is 100 cycles per second and the right channel's pitch is 108 cycles per second, the difference between the two equals 8 cycles per second. When these sounds are combined, they produce a pulsing tone that waxes and wanes in a "wah wah" rhythm.

Binaural beats are not an external sound; rather, they are *subsonic* frequencies heard within the brain itself. These frequencies are created as both hemispheres work simultaneously to hear sounds that are

pitch-differed by key mathematical intervals (*window frequencies*). The brain waves respond to these oscillating tones by following them (*entrainment*), and both hemispheres begin to work together. Communication between the two sides of the brain is associated with flashes of creativity, insight and wisdom.

Alpha-wave biofeedback is considered a consciousness self-regulation technique, while alpha-frequency binaural beat stimulation (frequency-following response) is a passive management technique where cortical potentials entrain to or resonate at the frequency of an external stimulus. Through the self-regulation of specific cortical rhythms, we begin to control those aspects of consciousness associated with that rhythm. When the goal is alpha, either in meditation or in biofeedback, it means entraining with the primary SR.

MEASURING CHANGES IN SCHUMANN'S RESONANCES

Earth's background base frequency, or "heartbeat" (Schumann's resonances), fluctuates and may be rising dramatically. Though it varies between geographical regions, for decades the overall measurement was 7.8 cycles per second. This was once thought to be a constant. Global military communications were developed using this frequency. However, recent reports set the rate at over 11 cycles and climbing. Science doesn't know why, what to make of it or even if these reports are credible.

Gregg Braden claims to have found data collected by Norwegian and Russian researchers, and says it's not been widely reported in the USA. The authors have been unable to substantiate this. Braden suggests the only reference to SR to be found in the Seattle Library reference section is tied to the weather. Science acknowledges SR as a sensitive indicator of temperature variations and worldwide weather conditions. Braden believes the fluctuating SR may be a factor in the severe weather conditions of recent years.

As previously stated, the Earth behaves like an enormous electrical circuit. The atmosphere is actually a weak conductor; and if there were no sources of charge, its existing electrical charge would diffuse away in about 10 minutes. There is a "cavity" defined by the surface of the Earth and the inner edge of the ionosphere, whose height fluctuates somewhat. It's been calculated that at any moment, the total charge residing in this cavity is 500,000 coulombs.

There is a vertical current flow between the ground and the ionosphere of $1 - 3 \times 10^{12}$ amperes per square metre. The resistance of the atmosphere is 200 ohms. The voltage potential is 200,000 volts. There are about 2,000 lightning storms at any given moment worldwide. Each produces 0.5 to 1 ampere, and these collectively account for the measured current flow in the Earth's "electromagnetic" cavity.

Schumann's resonances are quasi standing-wave electromagnetic waves that exist in this cavity. Like waves on a string, they must be potentiated or "excited" in order to be observed. They are not caused by internal terrestrial factors or Earth's crustal movements or the core, which does produce magnetic fields. They seem to be related to electrical activity in the atmosphere, particularly during times of intense lightning activity. So long as the properties of Earth's electromagnetic cavity remain about the same, these frequencies remain the same. Presumably there is some change due to the solar sunspot cycle, as the Earth's ionosphere changes in response to flares and mass ejec-

tions during the 11-year cycle of solar activity. High-energy charges coming off the Sun brush across the upper atmosphere, ionising there.

Since the Earth's atmosphere carries a charge, a current and a voltage, it is not surprising to find such electromagnetic waves. The resonant properties of this terrestrial cavity were first predicted by W. O. Schumann in 1952 and 1957, and first detected by Schumann and Konig in 1954.

Much of the research in the last 20 years has been conducted by the US Department of the Navy, which uses ELF signals for communication with submarines. However, little attention is given by the military and defence contractors to issues of psychobiological health and well-being.

Between the nearly perfectly conducting terrestrial surface and ionosphere, a resonating cavity is formed. Broadband electromagnetic impulses, like those from lightning flashes, fill this cavity and create globally the so-called Schumann's resonances at frequencies in the range of 5–50 Hz (Schumann, 1952; Bliokh et al., 1980; Sentman, 1987). The nominal average frequencies observed are 7.8, 14, 20, 26, 33, 39 and 45 Hz, with slight diurnal variation (Sentman and Fraser, 1991).

Standard magnetometers are not able to measure Schumann's resonances, and even the search coil (i.e., pulsation) magnetometers, which most often sample at about 0.1 Hz, do not allow such studies. Special equipment is thus needed (see, for example, Sentman and Fraser, 1991).

Current findings suggest:

1. Schumann's resonances are actually observed by experiment to emerge at several frequencies related to brain waves. They range between 6 and 50 cycles per second, specifically 7.8 (alpha), 14 (low beta), 20 (mid beta), 26 (high beta), 33 (low gamma), 39 (gamma) and 45 Hz (gamma), with daily

variation of about ± 0.5 Hz.

2. The strongest of the seven resonances is 7.83 Hz, in the alpha brain-wave range. If the rise in resonance continues, this primary resonance, the Earth pulse, changes from sub-band low alpha (7–10 Hz) to sub-band high alpha (10–12 Hz), perhaps influencing our ability to relax deeply, balance and integrate our mind/body connection. It could influence REM sleep and dreaming. If it continues to rise, it will breach the threshold into "fast" beta activity. Low beta (12–15 Hz) is associated with lack of focused attention, and can even indicate attention deficit disorder.

3. The amplitude (i.e., intensity) of the Schumann's resonances is not constant, and appears to be extremely dependent upon tropical (and hence global) temperature. Indeed, preliminary results seem to indicate that a mere one-degree increase in temperature correlates with a doubling of the SR. This could not be more significant, as it is unknown what psychobiological effect these fluctuations could have on humans.

SR AND GLOBAL TEMPERATURE CHANGES

One of the most crucial questions in science today centres on whether or not the planetary temperature is rising, falling or remaining unchanged. Recently global warming has been acknowledged by most in the field, and human interference (technology) is implicated.

On one hand, analyses of thermometer measurements of near-

Earth's background base frequency, or "heartbeat" (Schumann's resonances), fluctuates and may be rising dramatically.

NEWSCIENCE NEWSCIENCE NEWSCIENCE

surface global (land and sea) air temperatures suggest the planet has been warming in recent decades. But satellite measurements of the planet's lower atmospheric temperature show no warming from 1979 to 1998.

Temperature data from weather balloons launched throughout the world reveal variations and trends in global temperatures that correspond to those found in the satellite-based measurements. Analysis of pressure thickness measurements from these same balloons also shows no warming in recent decades. It's no wonder we have such an ongoing "heated debate" about the recent temperature history of the Earth! Yet most people recognise that their local weather is markedly different than in past decades.

Scientists have suggested lately that another method may exist to monitor planetary temperature accurately. The idea is simple, though the underlying physics of the processes is complex. The method is based on the well-known fact that thunderstorms and lightning strikes in many parts of the world are directly related to lower-atmospheric air temperatures. Higher temperatures produce more lightning strikes, while lower temperatures tend to depress lightning activity.

Lightning discharges occurring anywhere in the world produce electromagnetic pulses that spread away from the source. Much of the energy is quickly degraded, but some of the energy the lightning produces falls in the extremely low frequency/long-wavelength domain of the electromagnetic spectrum. At these long wavelengths, the energy from a lightning strike is able to circumnavigate the Earth without serious degradation. This low-frequency/long-wavelength energy creates SR signals which can be detected throughout the world.

Understanding SR waves requires a basic appreciation of the vertical structure of the atmosphere. In the upper reaches of the ionosphere, incoming ultraviolet radiation and soft X-rays affect atoms or bonded groups of atoms, causing gains or losses of negatively charged electrons. This interaction creates an environment of positively and negatively charged particles of the high atmosphere that, among other interesting qualities, can readily conduct electricity.

The bulk of our insulating atmosphere lies between two conducting layers of the Earth's surface and the lower boundary of the ionosphere. This spherically concentric cavity, the Earth/ionosphere cavity, is bounded by those electrically conducting walls. Again, lightning discharges within the cavity produce electromagnetic pulses that spread away from the source in the extremely low frequency domain, and the conductive walls of the cavity produce some interesting effects for the low-frequency energy.

For example, energy with a frequency near 7.5 Hz would have a wavelength of about 40,000 km (recall that wavelength = speed of light / frequency). Because this wavelength equals the circumference of the Earth, the energy is able to circumnavigate the Earth/ionosphere cavity without serious degradation. The 100 or so lightning bolts occurring each second in the 1,000 lightning storms around the world contribute to the energy in the 7.5 Hz portion of the spectrum, which can be measured anywhere on the planet. It is these resonance properties of this global spherical capacitor or resonator that Schumann predicted over 40 years ago.

In an article published in *Science*, MIT scientist Earle Williams

(1992) constructed a powerful argument that links Schumann's resonances to convection and ultimately to widespread tropical and/or global temperature. Williams concluded that a 1°C warming in the tropics should result in a fourfold increase in lightning activity, and he presented empirical data from several locations to support his conclusion. He noted that any measurable parameter nonlinearly related to temperature could be extremely useful in assessing the most subtle changes in global temperature. Others have presented different sensitivities: Price (1993) concluded that a 1°C warming would increase global lightning activity by 7%; Price and Rind (1994) found a 5–6% increase per 1°C sensitivity; while Reeve and Toumi (1998) found the sensitivity to be near 40% per 1°C. Regardless of the exact sensitivity, all these scientists conclude that lightning increases with even moderate amounts of warming worldwide. More lightning would generate a stronger SR, which may be useful in monitoring planetary temperatures.

The link between SR and the number of lightning strikes is supported by a mean day/night temperature fluctuation pattern. A diurnal pattern of worldwide lightning exists with three maxima recorded regularly due to the large number of mid- to late-afternoon thunder-

storms in land areas of Africa, South America, and Southeast Asia and Australia. (Storms are first generated in Asia; later they form in Africa; and later each day they arise in South America.)

Global warming has been linked to the suspected rise in SR, and is a threat to its synchronisation with our brain waves. Small changes in temperature pump up into large signals in extremely low frequency (ELF) resonances. Long-term monitoring and study of global climate changes via measurements of ELF electromagnetic waves needs to be conducted more closely. Monitoring the intensity

and frequencies of the lightning-induced ELF SR could help monitor changes in the Earth's climate over time.

One Israeli program proposed setting up two or three widely separated ELF field sites. A suggested site for a permanent SR monitoring station was in the Negev Desert in Israel. Members of this proposal want to develop, test and install the appropriate software for the automatic electromagnetic monitoring and preliminary processing of the incoming data. They suggested that simultaneous measurements could be made in Russia and Sweden to test the global nature of the ELF signals measured in Israel. The continuous ELF data measured in Israel could be compared with other ELF data sets from other locations around the world, such as Hungary, USA or Japan. Furthermore, the relevant global climate data sets—such as surface temperature, satellite observations of the global distribution of deep convection, and global atmospheric water vapour measurements—could be used for comparisons with SR data to check the reliability of the "global thermometer" hypothesis.

A systematic study of SR parameters during high-energy particle precipitation events has shown that protons and electrons with energies above 1 MeV ionise the upper boundary of the Earth/ionosphere cavity. This leads to an increase in the resonance frequency and a decrease in the damping of the first Schumann's resonance, as derived from measurements at Arrival Heights, Antarctica. The study used

Lightning discharges occurring anywhere in the world produce electromagnetic pulses that spread away from the source.

Continued on page 77

WILBERT SMITH ON TIME, GRAVITY & ET TECHNOLOGY

**Canadian engineer
Wilbert Smith made
some astonishing
revelations about
time, spacecraft
propulsion, alien
technology and the
gravitational effects
of nuclear
explosions when he
spoke to the
Vancouver Area
UFO Club in 1961.**

by Wilbert B. Smith, 1961

From the web page:
<http://www.presidentialufo.com/smith>

The following is an edited version of a speech by Wilbert B. Smith, given at short notice to the Vancouver Area UFO Club on March 14, 1961. It was entitled, "What we are doing in Ottawa".

May I point out that the Project *Magnet* I was associated with, which received much publicity, was not an official government project. It was a project that I talked the Deputy Minister into letting me carry out, making use of the extensive field organisation of the Department of Transport. No funds were spent on it and we merely had access to the very large field organisation and opened a number of files. Unfortunately, the press climbed on this and made a big deal out of it... However, we carried the project through officially for about four or five years and then went underground because of press interference...

However, we had been following up every lead we could find. Some of the leads led to a dead end. We found a tremendous amount of garbage. We found a number of contacts which we believed to be sincere. Our technique of handling the contacts was to ask a number of rather general-type questions of all the contacts and then we compared the answers. We found that in a majority of cases we got back exactly the same answers from all the contacts. We felt that, since this was the case, the contacts were probably authentic. In a few instances we got back answers which were completely inconsistent and we discarded these contacts. We just confined our activities from thereon to the contacts whose results we had been able to check.

In following through our program of investigation, we have always felt that an unconfirmed report of any kind was of interest only. If we could get an additional confirmation, we felt that it had something better than a 50 per cent probability of being correct. If we had two independent confirmations, we rated it about 75 per cent, and so on. So the material I will be talking about a little later on is the result of not just one bit of information; the majority of it has been the result of three, four, five or sometimes even more independent transmittals of the same information.

Now, this information includes a great deal of philosophy, a good deal of what you might say is human engineering and a great deal of science. Being of a scientific background myself, my own interest was directed largely towards the scientific end. I wanted to know how these craft were built, what their motive power was, where they got their energy and how come they were able to do such interesting things that our craft were unable to do. Many of the questions that I asked, when I had the opportunity to ask them, were along scientific lines. I will admit that I got back a great deal of info which was completely unintelligible, which sounded like a lot of double-talk. However, since we had previously established that the contacts from whom we got this info were probably authentic, we simply took the info down either in writing or on tape and kept it for future reference, and eventually we were able to get quite a good deal out of this. There is a great deal that we have that we have not yet been able to decipher. I think the trouble is with *us*, not with the info. Much of the info, which we obtained from these people, cast some serious doubts on the validity of some of the basic concepts of our science.

For one thing, they told us that the velocity of light was not a constant. As a matter of fact, they seemed to be rather pointed in their statements that light doesn't travel, it *is*. And we told them that from our point of view it appeared to travel with a certain

definite velocity of 186,000 miles per second. They said that's the way it looks to you because you are looking at it from a region having certain conditions, certain influences, but they said that if you were to go away from this region you would find that a different set of circumstances prevailed.

THE PARADOX OF TIME

Another thing they told us cast a great deal of doubt on our ideas of time. They told us that time wasn't at all what we thought it was, namely, what might be marked off with the ticking of a clock; that time was, in fact, a field function, the result of there being a universe—that is, something which was derived from the basic primordial concepts which brought this universe into being, and that it differed as you went from one part of the universe to the other. Also it could be altered, sometimes by natural means, sometimes by intelligently controlled means in various parts of the universe. So that in any given interval, which incidentally is what our clocks mark off...intervals, not chunks of time...in these intervals, we can have all sorts of lengths of time.

In other words, if one of you checks your clock with me and finds that they are synchronised and I climb into a flying saucer and take a little trip out well clear of this Earth and I watch my clock and, say, come back in three hours' time and we again compare clocks, maybe your clock says I've been gone an hour, but my clock says I've been gone three hours. Both clocks are strictly correct. You've experienced an hour in the time that hand went around once, but in that same interval I've experienced three hours—and they were three *real* hours, not an illusion.

The theory of relativity talks about this dilation. But this leads to a paradox, and I think that anyone who is at all mathematically inclined and has taken the trouble to look at the relativistic time paradox is probably disturbed by it. According to the theory of relativity, if I climb into a spacecraft and start out from the Earth, here, at a velocity very nearly the velocity of light and I go out to, say, Alpha Proxima and then I turn around and come back, people on the Earth say I've been gone something like 10 years. According to my clock, I've only been gone a year. Now that is a result, apparently, of the time dilation in the theory of relativity, in that the spacecraft was moving relative to the Earth at a velocity very nearly equal to the velocity of light.

The paradox arises when you consider that, relative to the spacecraft, the Earth was travelling away at exactly the same velocity; so therefore, to the people on the spacecraft who are relatively stationary, 10 years should have passed and by the time the Earth came back to them it should only have been

away a year. So you can see right away that the very premise on which the theory of relativity is predicated—namely, that if B is relative to A, then A must be relative to B—leads you to an impossible paradox. This paradox is resolved completely if you recognise the variable nature of time. As you move around from one part of the universe to the other, you encounter all sorts of values of time in certain given intervals.

Now, I find that this idea of the concept of the variable nature of time to be almost incomprehensible to most people... We were born with more intelligence than we have after we graduate from university because we've had it beaten out of us in the process. The very first thing that we learn when we are a very small child is that the feeding must be regulated by the clock. We don't know about the clock, but regardless of how we feel on the subject we still get the bottle at a certain time,

and this carries on right through our conscious life. Every time we do something, we check with the clock. We become slaves to the clock to the extent that we believe that the intervals cut out by the clock are time itself. So we find it very difficult to readjust. Now I don't propose to say anything more about this particular aspect, but I would like to say something on the subject of the craft themselves.



Wilbert B. Smith (1910 - 1962)

SPACECRAFT PROPULSION

We asked them how the craft were supported and they said they were supported on the Earth's

gravitational field. We asked them what the Earth's gravitational field was and they said it was a complicated function which has to do with the influences of the material which made up the planet which was producing the field.

With further study on our own, with occasional reference to these people from elsewhere, we figured out what was really taking place, to the extent that we were able to go into the laboratory and conduct a series of experiments which proved beyond a doubt that this is true. Our laboratory experiments have allowed us to make about a one per cent change in the weight of objects. We can make them about one per cent heavier and one per cent lighter. Now that is a long way from holding a spacecraft up, because you have to go over a hundred per cent before you do that. But the fact that we can do it, the fact that the principle that the people from outside gave us and guided us to find out for ourselves is valid, certainly indicates that, first, these people are what they say they are, and, second, their technology is what they say it is—that it is superior to ours, that ours is inadequate in many respects.

I asked for a blackboard here tonight because I want to draw a very small diagram on here, which I think may throw a little light on how these craft are actually held up. Now, the diagram is very simple [draws on board]. Those lines can be con-

sidered as the Earth's gravitational field. This is not a strictly correct representation because a field is a dynamic function, not a static one. Down here some place is the centre. As you can see, this is diverging outward. If we place any object in here, this object is subject to attraction from this virtual centre down here, on this side and this side, but *this* side is closer than this side, so that we have a net resultant force down this way. However, if we bend this field and we do *this* to it, this object now finds itself in a field, the virtual centre of which is up here somewhere, so that the object now thinks *this* is down and proceeds to fall in that direction. Or if the field is bent until it is exactly parallel, there is no resultant force on the object and it remains weightless.

It is just that simple, and this is precisely what we have done in the laboratory. But because the fields around the Earth are very intense, the fields which we have had available from our modern technology are most inadequate to do more than bend these fields by a very small amount, so we have been able to bend the Earth's field to fool the little weight into thinking that *that* was down instead of *this* being down.

Now we understand that these craft operate on that principle. Underneath the bells there are three things that people have referred to as "landing gear". It's not landing gear at all: they're spheres within which a charged sphere is rotating; it is spinning on magnetic bearings.

Magnetic bearings are something else which the boys from topside have told us about. It's a very simple design in section [draws on board]. This is the north pole and this is the south, and in it we have a thing which looks like this with a south and this with a north. They're just simply ferrite bearings permanently magnetised. We built them ourselves and checked them in the lab and they work perfectly.

They're very simple things. And the spheres carry a charge and they spin on this type of bearing down inside the big ball. And the tilt is just simply produced by rotating the sphere a little bit, which bends the field. The process is much more complicated than would appear from what I'm telling you. This is the first step and the end result, even though there are a lot of others in between.

HARDWARE EXPERIMENTS

One other thing that I would like to mention is that, as far as I know, our group in Ottawa is the only group that has actually taken the info from the boys topside and translated it into hardware that works. Much info has been given to us through other channels, but people just talk about it. They don't do anything about it, and I think that's deplorable. I think when they give info, the least we can do is to show our good faith by trying to convert the info into hardware.

We have built two items of hardware on their instructions that I'm rather proud of. One is a coil. It has a ferrite core and a trick winding on it. To look at it, it looks like a rather oddly wound inductor. When measured on a radiofrequency (RF) bridge, it shows some very peculiar properties. There are certain frequencies at which it is impossible to balance the RF bridge, and that is a direct contradiction to what any electrical

engineer will tell you should happen with a coil of wire wound on a ferrite core. Now, if we take this coil and we excite it with radiofrequency energy at or near these critical frequencies, we find that energy goes into the coil and nothing comes out—it's just disappearing. As a matter of fact, we had one coil about an inch in diameter and eight inches long and we poured a kilowatt into that coil for two hours from a kilowatt communications-type transmitter. The coil was in a two-inch brass tube with a plate welded on one end and a transmission line fitting on the other. We could find no radiation around the outside of that tube at all. In other words, the energy went in and none came out.

The info, which we got from the boys topside, was that we were making tensor energy, which is a sixth-dimensional radiowave and is the type of energy they use extensively for radio communications, transmission of power and for pushing and pulling. In fact, they use it for just about everything that we could think of. We were not able to control this energy; we could just make it. We are hoping that later on we will be able to learn how to do it, but at the present time we are just not smart enough.

**Sure enough, big as life
and twice as natural,
we found a very large and
very strong vortex.
Our instruments showed it
beyond a doubt.**

AIR CRASHES AND REGIONS OF REDUCED BINDING

The other item that I'm rather proud of resulted from a series of questions that we asked regarding accidental destruction to our aircraft by flying into the vicinity of a flying saucer. We were informed that although a few of our aircraft had come to an unfortunate end by what they considered the colossal stupidity of our pilots, they were now taking corrective measures to avoid our aircraft. I asked them what happened, and they said that, well, the fields around the saucers—in order to hold them up,

in order to produce the gravity differential, the time field differentials which were necessary to operate the ship—sometimes produced field combinations which reduced the strength of materials to the point where they were no longer strong enough to carry the load that the materials were expected to carry.

As we know, aircraft, particularly the military type, are built with a rather small factor of safety; and in these regions of reduced binding, the materials are no longer strong enough to carry the load and the craft simply comes apart. Now, we asked a series of questions about whether it was possible for our craft to detect these regions so we would not fly into them, and they said it certainly was and they would give us the design of an instrument which would do this. They told us also that we, ourselves, were creating regions which were much more dangerous than the regions which they'd established because we could detect the presence of their craft and give them a wide berth, but we could not detect without instruments the presence of these vortices which we ourselves are producing.

They gave us the design of the instrument, which was fundamentally this: they said to select two materials, one stronger than the other, and they said to arrange them so that these two materials pull against each other in such a manner that the

weaker material was very near its breaking point and the strong material was a long way from its breaking point. On that basis, we devised an instrument and built quite a number of them and sent them around to various people that we knew did quite a bit of travelling, and we asked them if they would investigate regions through which aircraft must have passed just prior to breaking up in mid-air. We have, unfortunately, a large record of our aeroplanes having done just this.

One of these crashes occurred at a place called Issoudon, which is about 20 miles southwest of Quebec, and we investigated the region through which this BOAC aircraft must have passed just prior to the crash. Sure enough, big as life and twice as natural, we found a very large and very strong vortex. Our instruments showed it beyond a doubt. It was about a thousand feet in diameter and roughly circular with a rather sharp line of demarcation at the edge of it. You will recall also that about two years, three years ago, possibly a little longer, a jet aircraft crashed into a nunnery at Orléans, just out from Ottawa. It killed a number of people and did a great deal of damage. The jet engine itself was finally dug out of the sub-soil about 30 feet below the foundation. We investigated that one, and again we found a very strong vortex of reduced binding. We had a number of reports, some in from the people in the field who had found exactly the same thing.

I wrote a very stiff memorandum to the appropriate people in my own department, pointing out some of these facts without saying where we got the info. We told them we had instruments which showed the existence of these regions of reduced binding and suggested that something be done about it. The letter wound up on the crank file. I'm afraid that is the fate of most of these things: they wind up on the crank file. However, that does not in any way change the fact that these regions of reduced binding exist. People topside told us they existed, and we designed instruments which confirmed these facts.

GRAVITATIONAL EFFECTS OF NUCLEAR EXPLOSIONS

There's one other little point that I would like to make in connection with these regions of reduced binding. That is, that the people from topside told us that we make them when we set off a nuclear explosion. We make two of them: we make one of them in the vicinity of the nuclear explosion, and one on the opposite side of the planet. Any of you who have ever seen pictures or facsimiles of a nuclear explosion have probably noticed that there is a column which is approximately of uniform diameter extending upwards from the region of the explosion and that is capped by a big mushroom-shaped cloud. That shape, that fact itself, should have been sufficient warning to us that we were producing a very serious gravitational disturbance.

I'll show you what happens [draws on board]. That circle represents the Earth. Out from the Earth is emanating...for the sake of simplicity, let's call it a gravitational field. We have a nuclear explosion that takes place at some point. A nuclear explosion means that there is a sudden change of matter to energy; in other words, we have a a...[static]...which is large.

Now, it is not difficult to tell that if you have such a disturbance occurring in a gravitational field, there will be projected outwards a gravity wave which will be projected in the direction of the gravity field and with a velocity which is inversely proportional to the strength of the gravitational field. Therefore, if the explosion itself, if the conversion of mass to energy lasts over a period of time which would permit the expanding material to move out a hundred feet this way and a hundred feet this way, we would have a region 200 feet in diameter in which mass was being converted to energy and which would be a virtual sort of a gravity wave that would travel straight up, thereby producing the column that we see supporting the mushroom cloud.

What we don't see is that penetrating downwards through the centre of the planet there is a similar gravity wave which comes to a focal point down here; and in this region, from approximately here on down, we have approximately the same mass all the way around so that the gravitational field in here is very low. So the velocity becomes very high and flares out this way, so that it comes out on the far side of the Earth as a diverging cone. Now these things don't go away. We literally punch a hole in the field structure of the Earth: a little round cylindrical hole on this side and big conical shaped hole on the

other side. They stay there for a long time. They're vortices and it takes them quite a while to dissipate. We don't know how long, but we have gone back to places such as Issoudon three months later and found that the vortex has gone. Now maybe it has moved away. We believe that that is what happens, because we actually caught one of them moving; or maybe it dissipates, or maybe both. But we did find one out over the North Atlantic that had drifted, that was picked up first by a friend of mine who is an RCAF pilot who had the

instrument with him. They located it on a reconnaissance flight just to the south and west of Iceland. And then again, on a flight out about a week later, it was about halfway between Iceland and Newfoundland and considerably weaker. At least that is the impression they got from the instrument indication. So apparently they do move around and I presume they do fade out.

We haven't, incidentally, located any in the last year or so. I presume it's because we have not been exploding any bombs lately. Now this is a bit of a review of our activity in Ottawa—what we have been doing and why we have been doing it.

QUESTIONS AND ANSWERS

Q: Do the vortices affect human life?

A: That we do not know. We have had no opportunity of placing a guinea pig in the area and keeping them there for any length of time. The vortex at Issoudon extended, when we discovered it, partly over the highway and out into a field. There were no accommodations for anyone even to park, other than on the shoulder of the road, long enough to explore this. We just don't know.

Q: Why have nuclear tests been stopped?

A: I can only guess at why they have been curtailed. I saw

The people from topside told us that we make them when we set off a nuclear explosion. We make two of them: we make one of them in the vicinity of the nuclear explosion, and one on the opposite side of the planet.

a picture I know was never released to the public, showing a very large nuclear explosion at Bikini. This picture showed a large fireball which I think must have been well over 100 miles in diameter and projecting out from it were what looked like solar prominences, great tongues of activity. Now these tongues looked to me from the scale of the picture to be about 25 to 50 miles [in size]. They were quite comparable in size to the big fireball. Now, my guess is that these tongues were in fact chain reactions taking place in the Earth's atmosphere. What mechanism was involved, I can only guess. I'm not a nuclear physicist. I only know that this picture was considered by those knowledgeable to be very significant and very worrisome. I think another reason, possibly, for the curtailment of the tests has been rising public opinion. It would be highly undesirable to go any further into the business of nuclear weapons than we have gone; possibly we have gone too far already.

Q: [Question was barely audible and referred to the measuring instruments.]

A: We believe that as long as the elastic limit of the material is not overstretched, the effect is temporary; but if it is overstressed, the effect is permanent. We found a very peculiar thing. Things in the northern latitudes generally appear to be somewhat stronger than in the southern latitudes. We have one instrument which we took from Toopah(?), Manitoba, through Ottawa, Washington, DC, and out through Oklahoma City. And while none of our instruments is calibrated in any kind of an absolute unit—simply because we don't know how to calibrate them in absolute units—they are merely scale indications. The scale goes around to 10. And we set them ordinarily around mid-scale, five or six. At Toopah it went up to about seven; when it got down to Oklahoma City it was down to two. And when we took it back to Ottawa it came back to the five. We had set it at five in Ottawa. Now, that meant that there was not a permanent stretch in the nylon fibre, which was the weaker of the two opposing pulls. However, every time we take one of these instruments into Toronto, we find that it promptly goes from five down to two; we have actually had several of the nylon fibres break when we take the instruments to Toronto. We came to the conclusion that Toronto was maybe good all right, but it wasn't very strong [laughter].

Incidentally, they have had an abnormal number of structural steel failures when buildings have been undergoing construction. The steel has given way, bolts have given way. We believe that this is maybe a semi-permanent condition for Toronto because we found that just as we hit the outskirts of the city and as we proceeded through the city and towards Hamilton...[static]...it seems to be permanent. It's been there for four or five years now.

Q: [Barely audible but had to do with the ability of UFOs to materialise and seemingly dematerialise.]

A: That is a question I find very intriguing. Consider a point here [indicates on board], about which time is not uniformly distributed. In other words, as you come out from here, you have less and less time; or, looking at it the other way, the

tempic field is greater *in here* than out here. If you have a beam of light passing through this region, since there is more time in here and less time in this part, this light doesn't have to go as far in a given interval as this beam of light does. So this light beam bends so that the direction is this direction here, but over here it's in *this* direction. So what apparently happens is that the light is bent around this particular point.

When you look at a saucer which has increased the tempic field in the vicinity of the saucer, you find that the light tends to approach the saucer in this fashion, go around it and out the other side. So that what little light comes directly from the saucer occupies such a very, very small portion of your field of vision that you think the saucer, if you see it at all, is tiny—about the size maybe of a dime—when in reality it may be 150 feet in diameter. You are literally looking past the saucer. Now, we saw one of the little monitors do exactly that trick.

We had very good reason to believe that a certain conversation we were having with a friend of mine was being monitored by one of these fellows, so when we came out of the house we made a definite effort to locate it. We did. It was down in the ditch near the front of the house. As soon as we spotted it, apparently the people controlling it became aware of the fact.

We literally punch a hole in the field structure of the Earth: a little round cylindrical hole on this side and big conical shaped hole on the other side. They stay there for a long time.

We saw what appeared to be just like a heat wave, something like a foot in diameter. Popped out of the centre of this appeared to be a little disc about so big, and it just took off like that into the blue yonder. I think the whole operation occurred in maybe less than two seconds. But we were looking right at it, and there were three of us, and we all saw the same thing. And knowing the trick about the field, we figured that that was how it was done.

Now, there is one way that you can tell that a saucer is parked in a meadow, for example. If there is a background of trees, as you would walk along or drive along in a car looking out across the field, as you pass the vicinity of the saucer, since the light has a little bit farther to travel during this, it would appear as though momentarily the background moved backwards. I have driven miles and miles past meadows looking for this very thing. I think I know what it ought to look like, but I haven't seen it yet. Maybe since I'm onto this trick, they'll do something else [laughter].

About the Speaker:

Wilbert B. Smith (1910–1962) held a Master's degree in electrical engineering and was the head of Project *Magnet*, the Canadian government's unofficial investigation into UFOs that lasted from 1950 to 1954. In 1950 he was the senior radio engineer in Canada's Department of Transport (later renamed the Department of Communications), responsible for allocating AM/FM radio frequencies even to the intelligence agencies, and was promoted to Superintendent of Radio Regulations Engineering in 1956. From the late 1940s, Smith had had a keen interest in ufology, and he even wrote two science fiction novels. His seminal work, *The New Science*, was published in 1964 (see <http://www.rexresearch.com>).

For extensive background on Wilbert Smith and his high-level involvement in the UFO issue, visit the website <http://www.presidentialufo.com/smith.htm>.

SECRETS OF THE NEVADA TEST SITE & AREA 51

**"V. L.", a physicist
who says he
worked at the
Nevada Test Site
and Area 51 from
1965 to 1977,
divulges details
about nuclear and
neutron bombs,
antigravity devices
and national
security issues.**

A Talk by "V. L."

Custer, South Dakota, USA
August 1995

The following is an edited transcript of a videotaped talk (including Q&A session) given by "V. L." at a meeting in Custer, South Dakota, USA, in August 1995. V. L., a physicist, says he worked for 12 years at the Nevada Test Site and "Area 51". The transcript was posted on the Internet without additional source information provided, but despite the lack of corroboration we present it here because it dovetails with other testimony from former Area 51 scientists and military personnel. – Editor

I spent from June of 1965 to August of 1977 directly on the Nevada Test Site; worked there full time. I was "Radiation Health and Safety". Most of the time I worked there, I either worked for Los Alamos Scientific Laboratory, Lawrence Radiation Laboratory out of Livermore...Berkeley, rather, California, or Sandia Corporation out of Albuquerque, New Mexico. All those testing laboratories have since changed their names. Lawrence Radiation Laboratory is now the Lawrence National Laboratory; they don't use the word "Radiation".

In my job we had responsibility for and access to all of the areas of the Nevada Test Site, which encompasses about 1,800 square miles. It begins north of Las Vegas at Indian Springs, where the bombing and gunnery range starts, and goes all the way to Beatty, Nevada. It's an area that has armed guards around it, surveillance devices. It's a restricted air space—you can't fly over it. If you're caught on it, things happen to you. I had a Top Secret clearance and I think there probably wasn't a square mile of that test site that I haven't been on or seen, part of which is Area 51.

One of the things I'd like to tell you folks right now is that there are certain things that I cannot and will not talk about. When you quit out there, quitting what used to be the Atomic Energy Commission...it's now the Department of Energy...it's kind of like quitting the Central Intelligence Agency. You never quit. They never let loose of you.

There are certain things that I saw and was part of that I will take to the grave with me without talking about. However, there are a lot of things that I *can* talk about. And I think the news media have titillated public interest in a very dishonest way because 95% of what's at Area 51 is totally uninteresting; it's very mundane. The federal government tests aircraft at Area 51 that they want to keep secret. To give you an example, when I was out there, during the later years I was out there, they tested the Stealth fighter and the Stealth bomber; the *Blackbird* SR-71 flew in and out of there on a weekly basis.

The reason the government uses Area 51 is because it has a 10-mile-long runway, absolute secrecy; you can't see anything that's worth seeing from the air or the ground. And that hill that sits away from Area 51 where everybody goes up and looks, all they can see...we used to sit there and look back at people and do this (wave) because all you can see is administration buildings. That's all you can see. The government knows that people are out there looking into the area and, because of that, a deliberate effort has been made that there's absolutely nothing to see right there. Now if you go a few miles north, there's a lot of things that people might want to see but never will.

The Department of Energy now has yearly tours of the test sight. Once a year, the families of employees that belong to certain classifications of workers are allowed to take bus tours through part of the test site. It's a very small area that they let people see; it's Frenchman Flat, the flat where the old air-bursts...where atmospheric tests were performed. But you can't get within 40 miles of Area 51.

As I told Paul Strassels on the radio the other day, there were things I saw and have seen in Area 51 that would make one wonder where they came from. I've also seen things

out there that violate most of the laws of physics. My degree is in physics, and we, on a routine basis, used to observe...because we worked at night, it was a 24 hours a day, 365 days a year operation out there. And I worked all three shifts: graveyard, swing and days. I worked at night a lot out there. I've seen things that most aircraft or no aircraft that I know of could do, do.

So the news reports that you hear are accurate to the extent that someone is testing either weapons or various vehicles that go through the atmosphere that use technology that we're not really in possession of. Now, if that sounds a bit odd, I would say this. The federal government is afraid...in fact, we had a whole division of public relations people to feed the public information that was cleansed...the federal government is afraid that if the population of the United States knew some of the things that we have done and have seen and have found, people would panic. And that's all I can say about that.

NUCLEAR WEAPONS TESTING IN NEVADA

The other thing is that while we were testing nuclear weapons out there—the last year I was out there, the last full year I was out there, in 1976—we had 53 or 54 underground nuclear weapons tests. We announced two of them to the public. The reason for that was strictly political. There was a groundswell movement to eliminate nuclear weapons testing, and the government didn't want people thinking they were hopelessly contaminating part of Nevada for all times, which they have...it's too late now, it poses no real threat to us, anyway. So they didn't announce those things. I use that as an example of part of what isn't told to the public.

There was nuclear weapons testing I was involved in, and I should hasten to say that most of that was stockpile testing. We would take a nuclear device out of stockpile and test it, see if it worked. It's as simple as that. Nuclear weapons tend to deteriorate when they sit around for periods of time; "degrade" is the term. We haven't tested at the test site now since 1992. Probably never will again. There's a massive clean-up effort out there, that will take a long time.

As far as Area 51 goes, I have a lot of friends that work at the test site, still. Area 51 is the most secured area in the United States. Area 51 happens to sit in a place where, as I said, security has to be absolutely tight because it's nothing but desert, government public lands; it's secured public land. A lot of what goes on in Area 51 goes on at night so the Russian satellites can't see what's going on. That's why people from time to time see things. It's a fascinating place.

If any of you have questions of me, I'll either answer them or I won't but I'll tell you up front whether I can tell you about it or not. I saw some things in Area 51...objects that were strange, didn't seem to be something that, at the time, we had the capability of manufacturing. I don't know where they came from, I don't know much about them. But I saw what I saw with my eyes. I did ask, on two separate occasions, one of caretakers—that's what we called them—and I was told the first time, "Don't ask". Now, remember, I had to have a Top Secret clearance, I had a "need to know". Our group, 80 of us, could go anywhere. We could ask any questions because of what we did. But that was one subject that I was told, "Don't ask". The second time I asked, I was warned that if I asked again, some rather dire things might

happen. So I never asked again. I'm familiar with the Roswell incident in 1947 in New Mexico. I have every reason to believe that the federal government found something there. I have every reason to believe the federal government will never tell what they found there. We have so much paranoia of humans, anyway, if there was any leak that some sort of life-form had visited this planet, the federal government is convinced that people would panic and that anarchy might prevail for a while. That's about all I can say.

The government is telling people that they're dismantling Area 51. I always found that curious because there's actually nothing to dismantle out there. Everything that's out there has been brought there from somewhere else. Right next to Area 51 is the Nellis/Indian Springs AFB bombing and gunnery range, and that's where all the armoured experiments go on. So it's all kind of part of the same area.

There were no nuclear weapons tests that were performed in Area 51. That's an area that has been kept pristine, for very good reasons. Mostly, the other different parts of the test site are designated as starting with Area 1 and ending with Area 26. Every area out there is numbered. Area 51 somehow got a designation of 51. There is no 27 through 50. But somebody decided to do

that. It's just like all of our nuclear weapons: they all have names. Every one had a name. That name was a code as to what size it was.

The largest...I can say this without fear...the largest underground weapon I ever participated in was a five-and-a-half megaton device, buried 5,500 hundred feet below the desert floor, that we set off. That's equivalent of five-and-a-half million tons of TNT. And that was the biggest device ever exploded in the United States. A larger device than that exploded underneath Amchitka

Island in Alaska some years later. There was a nuclear device set off in Hattiesburg, Mississippi. I don't know how many of you people knew that; that was done in the '60s.

We've had a number of accidents out at the test site that the public never knew about. I'm not really at liberty to talk about that, except it may be interesting for you to know that I now live in South Dakota; I don't live in Nevada anymore. And I will never live in Nevada. I personally have two body-burdens of plutonium-39 in me, and if I live long enough and become old enough I will die of bone cancer. But I'm not worried about that, because I knew what the risk was when I got into the business. A lot of the friends and people I worked with are dead now. It's a very risky, it's a very highly hazardous job.

Nuclear weapons are something that are, well, there are so many of them that...the hazard that a nuclear weaponry poses isn't blasting people off the face of the Earth. We could have a war with Russia and they could have one with us and China and everybody could get involved in it—it still wouldn't wipe out the human race. The problem comes after the bomb goes off because of what's called "fission products". And that's the contamination that ensues.

It's getting to be a real big problem because of the reactors. The fire reactors create fission products and debris that we're having a hard time figuring out what to do with. Probably most of that debris and waste will end up at the Nevada test site and that will be an area that, for thousands and hundreds of thousands of years,

The last full year I was out there, in 1976—we had 53 or 54 underground nuclear weapons tests. We announced two of them to the public.

no one will never be able to live there or it will be a closed area.

We're developing the technology now, and I don't mind talking about it because *Popular Science* came awfully close to the truth here a few months ago in one of their issues and I don't think they even knew it. The Air Force in cooperation with the Department of Defense is developing an aircraft now that will go to speeds in excess of 10,000 mph, which is almost fast enough to achieve orbit without boosters. And that is a nuclear-powered thrust system. Whether or not that will ever become public or not, it's hard to tell, because nuclear engines are very dirty—very dirty.

STRANGE SIGHTS IN THE DESERT

The only other things I can tell you about Area 51 is that there will never, in our lifetimes, be any information let out about some of the things that are out there. I will say that it has become a storage area for oddities. That's where, other than Kirtland Air Force Base, the Roswell debris was supposedly taken. All I can say is that some time, during my tenure at the Nevada Test Site, there was debris from Roswell, New Mexico, stored away at Area 51. I was lucky enough or unlucky enough to see some of it. I don't take any pleasure in that knowledge because it puts a constraint on me I don't like to have.

Question: Could you describe what you saw concerning the Roswell debris?

Answer: No. I'll tell you why, folks. I don't know if any of you have been to Leavenworth, Kansas, or not, but that's where the federal prison is. It's hot, it's humid and I have no desire whatsoever to go.

I still have a real, legitimate respect for the Department of Defense security. When you leave out there, they debrief you. And the debriefing lasted quite a few hours, the better part of

a day, and the bottom line was, "Don't talk or else". That was the bottom line. And they gave you a list of things not to talk about. I have not violated any of those this afternoon. Since I left out there, I don't believe I ever have. I'm very careful about it.

Question: I lived near an Air Force base and I used to see unusual things flying about. Are these things terrestrial or extraterrestrial?

Answer: Well, a group of fellows and I were on our way to work one night to the test site. We saw something that to this day...this was an aircraft of some sort, aircraft being defined as an object in the atmosphere that is moving around. There were six of us, we were all trained observers, we were not the type of people who see things go bump in the night. I'm pretty sceptical about things, generally. That aircraft that we saw land, which was next to the test site, did some things that, with the technology we had then and probably with the technology we have now, were impossible to do. We saw it, I saw it...the five other fellows with me, we stopped the car and got out and watched it for 15 to 20 minutes. I have no idea what it was.

I had access to and was privy to a lot of classified information; for instance, the SR-71 was a commonplace aircraft to us, and yet the general public knew nothing about it. But it came in and went and it made a lot of noise—that's the only thing I didn't like about it. It came in hot and it left hot. It came in over the speed of sound and it left at the speed of sound. So it was always making this horrible noise. That was a very common thing to see. Some of the other things I saw were uncommon.

POWER AND POWERBROKERS

Question: Who's the boss? How did you get hired?

Answer: That was a mundane process. I went out there...

Question: Was it the Department of Defense?

Answer: At the time it was the Atomic Energy Commission when I was hired. And then it became the Energy Research and Development Administration and then it became Department of Energy; the government keeps changing the name. I was there during the visit of two Presidents of the United States: Lyndon Johnson was one of them, Gerald Ford was the other one. Neither one of them was shown certain things. The President does not have Top Secret clearance.

Question: Do you agree or disagree with that?

Answer: That's a tough one. We live in a republic, a democratic republic, supposedly. I don't trust most politicians, however, not because they're dishonest, necessarily. Nuclear weapons are a very terrible thing. I'm ambivalent about it. I don't know. The time when Lyndon Johnson came out there, we tracked him through an area that was hot. None of us had anti-contamination clothing on; we had no instruments; we were dressed just like this. We let him walk through a contaminated area because it wasn't

supposed to be contaminated. That's all I can say about that.

Question: These things you can't talk about, in your opinion, do you feel they would cause mass hysteria? You seem calm.

Answer: No, it doesn't bother me, I have this belief. We have already been to the Moon, okay? Big deal. It's not going to be too many more years until humans will be to Mars and beyond. It's a matter of propulsion systems; it's a matter of getting people to the point where they can live in space for long periods of time,

either in suspended animation or whatever, so they don't come apart, mentally or physically. We have the technology to literally explore the solar system right now—the planets that are in the vicinity of us. And so it's not a big thing. It doesn't take much of a leap.

Quantum physics tells you accurately that the speed of light is not a speed which, beyond it you cannot go. That old theory is gone. Quantum physics says that you may go *faster* than the speed of light. If that's true, which it is, then travel to the nearest stars is possible. If we, who are barely out of the primeval mud, as beings can do this, it doesn't take much; it's very logical to assume that there are other life-forms out there somewhere. We're not unique. Good Lord, if we are, it's not much of a testimony, is it? There are other life-forms, certainly...nothing that I saw surprised me.

What surprises me is the government's paranoia about what the government knows. Consider the fact that the federal government won't even tell you the truth about the budget process, let alone anything else.

Question: There are some who believe we're already on Mars.

Answer: Well, I don't think so.

Question: Go back to the question of who's the boss.

Answer: Well, during the time I was out there, one of the bosses was Edward Teller. Edward Teller is the father of the hydrogen bomb. He worked for Lawrence Radiation Laboratory. He's still alive, and he's as close to being a "god" in the scientific community and the nuclear weapons community as anybody on this

The only other things I can tell you about Area 51 is that there will never, in our lifetimes, be any information let out about some of the things that are out there.

Earth. Edward Teller was held in far higher esteem than the President or anybody else.

Might be interesting to note—and this is not classified—during the time I was out there, the Soviet Union had an exchange program with us. It was not unusual to see Soviet scientists out at the test site on a regular basis. We shared a lot of information with them. I came to the conclusion, having talked to a lot of them over the years, that they were really not our enemies anywhere near to what the politicians wanted you to believe they were. We showed them...I showed them things that I couldn't believe we were showing people from the Soviet Union. And I asked about that and was told that we had an exchange program and they were able to see things and become aware of things that I certainly wouldn't have shown them.

Question: Did they see certain things that you couldn't see?

Answer: No, they couldn't go to Area 51.

Question: Why were we told they were so bad?

Answer: It's always helpful to a nation to have an enemy.

Question: Between Teller and Oppenheimer, what's your opinion about Oppenheimer?

Answer: Oppenheimer was railroaded; he was ruined because of the paranoia that was going on during that time. Robert Oppenheimer to me was a hero in the scientific community, and the man's life was ruined because of paranoia.

Question: Teller was kind of a political puppet?

Answer: Edward Teller was the kind of man that would have been loyal to Adolf Hitler or to whoever was the boss, so to speak. I didn't like the man; I still don't like the man. He's arrogant; he was totally unsympathetic to radiation health and safety; he was totally unsympathetic to people's lives, and he still is.

Question: I was noticing your medical ID bracelet. Is that related to your work?

Answer: I have MS; I also have degeneration of the retina. It's probably...the exposure I got, the radio-isotopes I have in me—it's very probable that my medical conditions are because of what I did. But I want to add, I knew what I was doing, I was paid very well for it and I have no regrets.

WEAPONS CAPABILITIES AND NATIONAL SECURITY

Question: This is a stupid question, but when they exploded that five-and-a-half-million-ton bomb underground, didn't that make a tremendous noise?

Answer: That was called *Box Car*; the name of that device was called *Box Car*. I don't know how they name those things; they all have these strange names. I was on that test. I was assigned to it. When *Box Car* was detonated, it was 5,500 feet under the surface—five-and-a-half-million tons of TNT equivalent, a device the size of...that log right there; maybe a little shorter. Ground zero lifted 400 feet for a half a mile radius, straight up in the air. And then came back down.

What happened then, underground, would be that a cavern, small or large, is created at the point where the weapon was detonated, of various sizes depending on the size of the weapon. And then the ground starts to slough in, all the way to the top—sometimes. *Box Car* didn't because it was too deep, but you have a crater on top. If you were to fly over the Nevada Test Site, it looks just exactly like the Moon. Precisely like the surface of the

Moon. There are *hundreds* of craters. To give you an example, one device that was set off right after I got out there in 1966, actually came out of the ground, on purpose—6.9 million cubic yards of dirt came out of the ground and created a crater in less than two seconds! That's a crater a quarter of a mile across and 500 feet deep.

Question: [Unintelligible]

Answer: Yes, that's Hattiesburg, Mississippi. At one point we had a project out there called Operation *Plow Share*. Operation *Plow Share* was designed to create weapons that were capable of digging another canal across the isthmus of Panama. So we dug a canal out at the test site. It's about a mile long, a hundred yards wide and it's probably 400 feet deep. We used five nuclear weapons buried at shallow depths to create this ditch. "Instant ditch"—that's what we used to call it. It was Operation *Buggy*. And not surprisingly, the people of Panama took exception to us wanting to do that, so we never did it. But we *tested* it.

That was very popular in the '60s: we thought we could use nuclear weapons to do industrial things. But we never could get them clean enough; we got them pretty clean, but not clean enough. The *clean* weapon is a neutron bomb.

The neutron bomb could be set off up here, 3,000 to 4,000 feet up: we'd all die, but the grass is okay, the trees are okay, the cars are okay; but we are water-bearing creatures and we would absorb

so many neutrons that we'd be dead, instantly. The neutron bomb is in place. Most of our intercontinental ballistic missiles have neutron bombs.

While I was at the test site, Jimmy Carter promised us that...now I happen to be a registered Democrat, so I'm not beating up on a Democrat here...Jimmy Carter promised during the campaign of '76 that if elected President he would *never, ever* test the neutron bomb or deploy it. What the American people didn't know was that we'd *already* tested it. And right

after he became President, in the next four years, we deployed it all over the world.

There's no reason to lie to people about that, because the neutron bomb—if you have to have a bomb—is a clean bomb. It doesn't contaminate, hardly at all. It's a very efficient killing machine, yet the federal government chose to lie about it. I don't know why.

Question: Can you tell us how the chain of command goes? I mean, if it's not the President, who...?

Answer: The National Security Council, indirectly. The National Security Council includes both the civilian and the military. The National Security Council includes the Joint Chiefs of Staff. We've come very close, folks, a couple of times, to having a military takeover in this country—and I'm not one of those people who goes around saying these things, but that's just a fact. The last one was when Clinton got elected: we almost had a military takeover. The test site was "locked down"; that's a term they use. Before we had a test, they'd lock the site down. You couldn't go anywhere for like two to three days. And if you were on the test, you were locked within a lock-down area.

After Clinton was elected President that November, the test site was locked down and stayed locked down for three or four *weeks*. There was no testing going on. There was some concern about the transference of power during that time from the election to

We've come very close, a couple of times, to having a military takeover in this country. The last one was when Clinton got elected: we almost had a military takeover.

January 27th or whenever it was, January 20th, when the inauguration took place.

There've been some pretty scary things happen. The only reason I knew about it is I worked out there. There would be times when we'd be put on alert, security alert, for reasons that were beyond me. There were times when things went the other way.

Before we set *Box Car* off, I called home that morning and told my wife to put a bowl of water on the kitchen table. Now this was 160 miles away; I lived in Las Vegas. I said, "Watch it; zero time is at five o'clock". I called from the test site. Everyone in Vegas knew; they stopped gambling during that time because of the roll of the dice! Vegas shut the casinos down for a few minutes, just the big ones. *Box Car* was so big, they had to say something about it, so at zero time, after the detonation, about a minute to two minutes later, my wife said that bowl of water sitting on the table splashed over and it actually did fall off the table! And that was 160 miles away as a crow flies.

Question: [Unintelligible]

Answer: Everything that goes on at the Nevada Test Site is on a "need to know" basis. There are three words that you will hear over and over, every single working day you're out there: everything is on a "need to know".

I was going to bring my security badge with me and I forgot it; I still have it. I had a Top Secret clearance with sigmas on it. These sigmas denoted what informational areas I was privy to, and one of those areas was Area 51. I got it as a souvenir when I left; I talked the security people into letting me have it.

There are all kinds of people in government that do not have the "need to know" what's going on out there, or at least parts of what's going on out there. And they're not told. And that includes the President.

The problem right now in this country is that we don't have an enemy any more. I only say that half facetiously. We'll create one, one of these days.

Question: I was wondering about your remarks about Clinton. The National Security Council intelligence arm must be pretty poor if they were concerned about the transfer of power to a man like Clinton who has become such a puppet. It just doesn't add up somehow.

Answer: I don't mean to sound sarcastic, but the term "military intelligence" is an oxymoron.

Question: [Something about propulsion systems; mostly unintelligible]

Answer: I can say this: antigravity devices exist; where they came from, that's another matter of speculation. Their unwillingness to talk about things like that within the government stems partly from human nature. If you're privy to some information that you hold dear, regardless of what it is, we're reluctant to share it with other people. That's part of the problem.

The other part of the problem is holding on to the information so it can be used militarily. We have become so used to having an enemy in this country and the need to have an enemy, another nation state, that's it's gotten pretty bad.

NUCLEAR TERROR

Question: What are your personal views about the future?

Answer: President Eisenhower warned us about the military-industrial complex before he left office in 1960. I personally believe that there's a reason we moved to the Black Hills of South Dakota. Partially because we're at the top of the food chain here, and the water chain. I like to live in a place where the water isn't going to be contaminated.

I personally feel that there's a good chance, an excellent chance, that there's going to be limited nuclear war in the next five to six years. And whether that escalates into a global confrontation, who knows. But it's going to happen just as sure as I'm standing here. The temptation to use nuclear weapons is getting more and more—tactical, not strategic nuclear weapons, the tactical nuclear weapons.

We spent a lot of time out there testing tactical nuclear weapons, 150 kilotons, 150,000 tons of TNT and less. Small devices, devices so that paratroopers can jump out of planes with them on their back. I can carry one around in a suitcase and the problem with that is, nuclear devices have become so small, so compact, so efficient, that if terrorists ever get their hands on one—and it's amazing that they haven't, absolutely amazing—it's going to make this thing in Oklahoma City look like a walk in the park. Because the first terrorist group that gets their hands on a nuclear device...

You know, we all used to say, "Well, China can't do it because they can't deliver the weapons"—that was a bunch of hogwash.

You don't need rockets to deliver nuclear weapons; all you need is a suitcase. It's that simple. I can give you the address of a company in San Francisco that would be more than happy to send you the blueprints for a nuclear weapon for \$19.95.

CROP CIRCLES

Question: [About crop circles]

Answer: You know, those crop circles are amazing. I don't know where they're coming from. We had places out in Nevada—there were no crops; it was

sand and low bushes—with crop circles identical to those at the test site.

Question: Were we responsible?

Answer: I can tell you one thing: at the test site, it wasn't some prank. In England, some say it was some pranksters, but at the Nevada test site it wasn't a prank. There are no pranks out there.

Question: No sense of humour?

Answer: You know what, actually there's a lot of people that work out there that *do* have a sense of humour! I have friend who has a picture of himself sitting on a nuclear weapon smoking a joint. Now if that were found out, he'd be in really big doggie doo-doo. But he's a guy that works for Los Alamos Scientific Laboratory in New Mexico.

Question: [Unintelligible]

Answer: You see, the insidious part about what we call "reality"...like radiation...we could be sitting here and right there in that cooler could be a lethal radio-isotope of, say, caesium-137

I can say this:
antigravity
devices exist;
where they came
from, that's
another matter
of speculation.

or strontium-90 and you would never know it—unless you had an instrument that detected it or if there were enough of it to where you became sick and got radiation sickness and subsequently died...a lot of what we call "reality"—what we see, we hear, we smell, we taste, we feel—isn't quite the way we think it is.

From a physics point of view, there is no such thing as colour. We're all sitting around here seeing colours that don't exist. Light is electromagnetic radiation and it's colourless. Our brains interpret different wavelengths of colour through our optic nerve. What our minds call "colour", green jacket, brown pants—there is no colour there. Your brain is interpreting colour, different wavelengths, and I call it "green" and I call it "brown". We mostly all agree on these things, generally speaking, but we all see different things. There is no colour.

So you have to stop and think about crazy things you see in the sky at night that may or not be unexplainable. To someone else these may be very common, very explainable and very ordinary. I'm just about to walk over the edge here...they may not be...if you were to see a person, you may not recognise that person as someone you thought might live on the face of this planet. And that's all I'll say about that; I swore to God I wasn't going to say that!

Question: [Unintelligible]

Answer: If a race of beings had the ability to travel from Alpha Centauri to here, they would certainly have the ability to camouflage themselves, either to where we couldn't detect them or to look like us. We're a diverse-looking race of beings; they could look almost like anything. There are creatures on this planet that look pretty strange.

I have a healthy respect for and a fear of my federal government—because I've seen my federal government do some really bad things to people. There were people out at the test site that were the subjects of radiation experiments. I've seen them tie animals down in areas that were going to be tested.

We had a tower out there; it was called Bren Tower. It was 1,300 feet tall, and at the top of that tower there was a reactor, unshielded, a small reactor; and around the base of that tower for a half a mile or so we would put experiments out, live experiments, and see how much radiation they could take—how much gamma radiation, how much beta, how many neutrons they could absorb. These were animals.

Question: When we dropped the bomb in Japan in 1945, we didn't know what the after-effects were going to be.

Answer: When we tested the first device in July of 1945—the *Trinity* device—in Alamogordo, New Mexico, the scientists didn't know for sure if that wouldn't cause a never-ending chain of reactions and it would absolutely destroy the world. They knew they had "x" pounds of fissionable material in that *Trinity* device, but they didn't know if that would trigger more reactions or not. They didn't know what was going to happen.

When they dropped the *Fat Boy* and *Little Man* on those two Japanese cities, they had all this experience of one device. And they dropped those very dirty devices and the war ended. Personally, I happen to believe that was the thing to do, because I think a million or more Americans, soldiers, would have died and a lot of Japanese people would have died if we had invaded the homeland.

Something else: we have laser weapons now that make nuclear weapons look pretty weak. We tested a lot of laser weaponry out there when I was there in the '70s—all kinds of laser weapons. Laser weapons are far more selective.

A nuclear weapon is just a great big bomb that blows up and you have the radiation and the heat and the wind and all that. They're not as all-destructive as people think they are. The new ones aren't as dirty as people think they are.

EXPONENTIAL ADVANCES

Question: [Unintelligible]

Answer: What I know about antigravity devices I'm not at liberty to talk about. Area 51 does not deal with nuclear weaponry. Physics, folks, is advancing in leaps and bounds; all technology is advancing in leaps and bounds.

One of the most dangerous things that's happening to the human race right now is we're being left behind. I can't even run my son's computer as well as he can, and technology is going faster than our ability to keep up with it. And when I say our ability, I'm not talking about just *us*; I'm talking about the people that build it.

We're a couple of years away from artificial intelligence, computerised artificial intelligence, that has the ability to reason, to think, to comprehend existence. If you stop and think about that, that's pretty scary. It gets to the point where maybe we become liabilities.

When I was a youngster, Buck Rogers and all that stuff was science fiction. And it's advancing exponentially. My mother, who passed away a few years ago, rode on a stagecoach here in the Black Hills. She also saw men walk on the Moon.

Now, you take another 20 years from now...and when I say it's increasing exponentially, the graph of scientific knowledge isn't going up like this—it's going *straight up*,

We're a couple of years away from artificial intelligence, computerised artificial intelligence, that has the ability to reason, to think, to comprehend existence.

practically.

We're talking about now, this Area 51 thing...the government will hang on until the last dog dies before they'll tell you what's going on out there—even after it becomes irrelevant anymore, even after it becomes where it's no secret. The government still won't talk about the things that happened in World War II. I'm not talking about nuclear things, I'm talking about the "Philadelphia Experiment", and I shouldn't have even mentioned that. The government will not talk about all kinds of things that they already know about.

Question: [Something about all the TV programs about UFOs and whether the government is ready to tell.]

Answer: It isn't the government loosening up, no. I have friends that work in government security. And they absolutely gnash their teeth at the fact that all these things leak out constantly and they lie awake at night trying to figure out ways to plug leaks.

I think I told you all what I could, without lying awake tonight wondering if I told you too much. I hope it was helpful. The best thing you can do to keep the society as free and open as possible is to make sure the politicians we elect to office don't allow themselves to be sucked into the vortex of secrecy that the government always wants to have.

And if you see anything flying around, believe your eyes and believe it isn't a weather balloon. If the government says it's something, it's pretty safe to disbelieve them.



AN EXOPOLITICAL PERSPECTIVE ON THE PRE-EMPTIVE US-LED WAR AGAINST IRAQ

by Dr Michael E. Salla ©
February 2003

Most, if not all, criticisms of the Bush Administration's motivation for launching a pre-emptive war on Iraq focus on a combination of the imperialistic worldviews of conservative politicians in power in Washington, DC, and the corporate interests that drive the political agenda of the US Bush Administration.

This study provides a radically different political analysis of the Bush Administration's motivation for going to war. It provides an exopolitical analysis of the policy dimensions of an historic extraterrestrial presence that is pertinent to Iraq and a US-led pre-emptive attack.

It is argued that competing clandestine government organisations are struggling through proxy means to take control of ancient extraterrestrial (ET) technology that exists in Iraq, in order to prepare for an impending series of events corresponding to the "prophesied return" of an advanced race of ETs.

This study examines the available evidence of an historical ET presence in Iraq, and then applies this evidence so as to

understand better the contemporary political situation in Iraq. It then analyses the motivations of the main political actors in the prospective US-led pre-emptive war on Iraq. The study concludes with some policy recommendations on how to respond to the legacy of an ET presence in Iraq and on its contemporary political relevance.

An Historic ET Presence in Iraq?

The strongest available evidence for a historical ET presence in Iraq comes from cuneiform tablets directly recording the beliefs and activities of the ancient Sumerians, whose civilisation began almost overnight in 3800 BC. Most of these cuneiform tablets relate stories of the Sumerians interacting with their "gods".

According to scholar Zecharia Sitchin, the Sumerians had detailed knowledge of all the planets in the solar system, understood the precession of the equinoxes and also had an understanding of complex medical procedures. They revealed in their tablets that all their knowledge came from a race of extraterrestrial visitors, the Anunnaki ("those who from heaven to Earth came"), who were not only teachers for the Sumerians but also played a role in the creation of the human race. The origin of this ET race was a planet called Nibiru, which had a long elliptical journey around the Sun and returned to this region of the

solar system every 3,600 years.¹

An independent archaeologist who discusses a direct link between the ancient ET presence in Sumer (southern Iraq) and the current US focus on the regime of Saddam Hussein is William Henry. Henry's main thesis is that there existed in Sumerian times a technological device which he describes as a "Stargate", which the Anunnaki/Nephilim used to travel back and forth between their homeworld and the Earth and around the galaxy.²

Sitchin's thesis of an ancient ET presence in Sumer as well as the notion of a variety of ET transportation devices described by other authors in their research of ancient civilisations and the resumption of archaeological excavations of the first Sumerian capital, Uruk, in 2002, give support to Henry's thesis that a Stargate lies buried in the sands of southern Iraq.

This provides important contextual information that is helpful in understanding the true motivations of the Bush Administration in launching a pre-emptive attack on Iraq. It may be argued that the Bush Administration and the Hussein Regime are both in a race against time to gain access and control of the Stargate in the ruins of Uruk, or some other location in Iraq, before the prophesied return of the Anunnaki. At the moment, a stalemate exists.

The Exopolitics of US Policy on Iraq

The primary evidentiary support for the above discussion is admittedly thin for conventional public policy experts and may sound better suited to a fictional thriller than serious public debate.

From a conventional perspective, a scattered assortment of independent archaeological authors, radical exegetical interpretations of biblical texts, the writings of "channels" of ET knowledge and speculative papers from astronomers hardly constitutes a persuasive source of information for understanding the motivations of US foreign policy.

The prevailing explanations of a Bush Administration as either devoted to eradicating Weapons of Mass Destruction and/or being driven by oil interests and imperialistic ambitions would predictably prevail for those unconvinced by the above sources.

There is, however, some important circumstantial evidence which lends plausibility to the Henry thesis of a Stargate as the true focus of the Bush Administration, or at least key interest groups behind it.

The first piece of circumstantial evidence is the overwhelming whistleblower testimony confirming the existence of clandestine government organisations responsible for suppressing public knowledge of an ET presence and which control all official interaction with ET races.³

From an exopolitical perspective, then, the clandestine suppression of a contemporary ET presence supports the conclusion that there is also an active clandestine suppression of an ancient ET presence which also has significant public policy implications.

The second piece of circumstantial evidence is the powerful diplomatic support given by Germany and France to the Hussein Regime in warding off a pre-emptive military strike. So powerful has been this support that the US Secretary of Defense, Donald Rumsfeld, disparagingly referred to them as the "Old Europe", in response to a reporter on January 22, 2003:

"You're thinking of Europe as Germany and France. I don't. I think that's 'old Europe'. If you look at the entire NATO Europe today, the centre of gravity is shifting to the East. And there are a lot of new members. And if you just take the list of all the members of NATO and all of those who have been invited in recently—what is

it, 26, something like that? [But] you're right. Germany has been a problem, and France has been a problem."⁴

Rather than backtracking on what was a diplomatic bombshell, the Bush Administration has instead continued to go to extraordinary lengths to isolate the German and French positions on Iraq. For example, the administration encouraged the leaders of Spain, Portugal, Italy, the United Kingdom, Hungary, Poland, Denmark and the Czech Republic to write a letter to the *Wall Street Journal* on January 30 that said that "the Iraqi regime and its weapons of mass destruction represent a clear threat to world security."⁵

So, rather than being merely an intense diplomatic discussion over different policy positions on Iraq, the debate—with the

The quality of evidence substantiating an historic ET presence and clandestine government cover-up has a significant degree of credibility and persuasiveness.

striking language and positions taken—suggests a more fundamental conflict over issues hidden from the public view. It is likely that there exists a factional struggle between clandestine government organisations set up to deal with the ET presence in the USA, with rival organisations created in Germany, France and also Russia.

The third piece of circumstantial evidence is the resumption of excavations of the first capital of Sumer, Uruk, by a German archaeological team in 2002. Given the prominence of Uruk and its likelihood as the site for a Sumerian Stargate, then resumption of excavations raises questions over why they were resumed at this time and what is being sought.

Given that political tensions in Iraq had not significantly diminished in 2002, and with these being a likely source of future military conflict with the US, it can be suggested that there are powerful hidden motivations for what on the surface appears to be a purely scientific dig of an ancient Sumerian capital.

The fourth piece of circumstantial evidence is the destruction of the space shuttle *Columbia* during its descent on February 1, 2003, at an approximate height of 38 miles and while travelling at Mach 18. One of the astronauts was the first Israeli in space—Colonel Ilan Ramon from the Israeli Air Force.

Colonel Ramon reportedly played a role in the Israeli attack on Iraq's *Osirak* nuclear facility in June 1981, and there has been speculation that his mission involved intelligence-gathering over Iraq during the shuttle's orbits. The destruction of *Columbia* occurred 16 minutes before touchdown, when its fuel tanks would have been virtually empty.

A likely source of the shuttle's destruction, given the speed and height of the *Columbia*, would have been some form of attack from an organisation or state possessing military capabilities well beyond those of any terrorist groups and indeed most nations. The likely cause would have been a clandestine government organisation that desired to send an important message to its US rivals over the threatened pre-emptive attack on Iraq.

When all the primary and circumstantial evidence is put together, what emerges is a very plausible case that supports Henry's thesis of a power struggle that goes to the heart of the ET presence and the continued clandestine suppression of ET-related information and its full implications.

The motivations of the Bush Administration in launching pre-emptive war on Iraq, interpreted in terms of the concerns raised in Bush's 2003 State of the Union address or the corporate and imperialistic interests suggested by Bush's critics, such as Robert Fisk and Michael Lind, can all be described as part of the surface layer of motivations driving the Bush Administration.

At a deeper level, it is likely that there is great anxiety by clandestine government organisations in terms of what would happen if Hussein, with the support of the German and other European governments, gained access to the Sumerian Stargate or other ET technology buried in Uruk, or if the Stargate were somehow to reactivate without clandestine government personnel present to monitor and control it.

President Bush's State of the Union address, outlining the need for a pre-emptive attack on Iraq, in most likelihood

masks a hidden agenda to gain access to the Stargate or other ET technology in Uruk and elsewhere in Iraq. Such access would presumably perpetuate clandestine government control over global resources and information at a time of increased ET activity and influence.

Policy Recommendations

If the exopolitical perspective is a more accurate description of the motivations driving the Bush Administration in pushing for a pre-emptive war on Iraq, then the following policy recommendations can be made.⁶

Firstly, the quality of evidence substantiating an historic ET presence and clandestine government cover-up has a significant degree of credibility and persuasiveness. This supports the creation a new field of public policy—exopolitics—which would study the historic ET presence in terms of its implications for contemporary public policy.

Secondly, there is a need to promote official government disclosure of the historic ET presence and/or the impending return of these ETs, and to make more representative the policy-making process that has evolved in government responses to such information.

Thirdly, evidence suggests that the present military preparations for a war against Iraq have little to do with weapons of mass destruction, but are designed to perpetuate US clandestine government control of information concerning the historic and present ET presence. Such a pre-emptive war should therefore be stopped and a resolution between the US, Iraq and interested European governments should be encouraged.

Fourthly, evidence suggests that the Iraq conflict and the destruction of the *Columbia* space shuttle mask a deep factional struggle between clandestine government organisations associated with different national governments that were initially created to deal with the ET presence. It is recommended that there be public disclosure of these organisations and their efforts in monitoring and responding to the ET presence, and that these organisations become accountable to elected public officials.

The final policy recommendation is that there needs to be more effort in determining the extent to which congressional and legislative oversight is required for organi-

sations created in different countries to deal with all aspects of the ET presence, both past and present, and on the implications of a projected return of a race of ETs associated with the birth of human civilisation.

This paper suggests that the best mechanism for responding to the existence of ancient ET technology in the ancient Sumerian capital of Uruk and/or elsewhere is a willingness by major world governments and associated clandestine organisations to share information and control over these ET assets.

A pre-emptive war, conducted largely for the control of a "Stargate" in Uruk, which pits the US and its allies against an Iraq which is tacitly supported by key European nations, could be calamitous if indeed the "prophesied return" signified an actual physical event involving the ancient ET race that played a role in the start of human civilisation.

Competing clandestine government organisations struggling through a proxy war over the control of ancient ET technology in order to prepare for those events corresponding to the "prophesied return of the gods" would hardly send the best example of a mature humanity responsible enough to continue to exercise sovereignty over the Earth's resources. The *Columbia* space shuttle may well have been a high-profile victim of such a proxy war intended to send a message to US-based clandestine organisations over the pre-emptive war against Iraq.

Human sovereignty may therefore be at stake at the very time where there exists an opportunity for a rapid movement forward in the evolutionary growth of human consciousness. It is up to all humanity to

decide how we respond to the challenge posed by clandestine organisations struggling over Iraq's historic resources to further their respective secret agendas.

Endnotes

1. See Zecharia Sitchin's chapter, "The Sudden Civilization", in *The 12th Planet*, Book 1 of the *Earth Chronicles* series, Avon Books, New York, 1976, pp. 12-51.
2. Henry outlines his thesis in his article, "Saddam Hussein, The Stairway to Heaven and the Return of Planet X"; available on his website at <http://www.williamhenry.net>.
3. See Salla, M.E., "The Need for Exopolitics", at <http://www.exopolitics.org>.
4. For discussion of Rumsfeld's comments and the French/German response, see Mark Baker, "Rumsfeld's 'Old' And 'New' Europe Touches On Uneasy Divide", Radio Free Europe, 24 January, 2003, website <http://www.rferl.org/nca/features/2003/01/24012003172118.asp>.
5. *Wall Street Journal*, Jan 30, 2003.
6. Salla, "The Need for Exopolitics", *ibid*.

About the Author:

Dr Michael E. Salla has held academic appointments in the School of International Service, American University, Washington DC (1996–2001), and at the Department of Political Science, Australian National University, Canberra, Australia (1994–96). He taught as an adjunct faculty member at George Washington University, Washington, DC, in 2002. He has a PhD in Government from the University of Queensland, Australia, and an MA in Philosophy from the University of Melbourne, Australia. He has a personal website at <http://www.american.edu/salla/>.

The full text of Dr Salla's article (Research Study #2) can be seen at the webpage <http://www.exopolitics.org/Study-Paper2.htm#Abstract>.





REVIEWS

BOOKS

Reviewed by Ruth Parnell

THE GALAXY ON EARTH: A Traveler's Guide to the Planet's Visionary Geography

by Richard Leviton

Hampton Roads, USA, 2002
ISBN 1-57174-222-0 (584pp tpb)

This latest offering from researcher Richard Leviton is a guidebook to sacred sites and spiritual places all around the globe. The first part serves as an introduction to geomancy, cosmology, the planetary grid system and our part in this metaphysical matrix. The second part, "An A-Z Inventory of the Light Pattern Library of the Earth Grid", categorises at least 40 specific geomantic features—known as Albion, Cosmic Egg, Dome, Dragon, Grail Castle, Labyrinth, Landscape Zodiac, and so on—plus their principles and applications, and cross-references them to locations on the planet. For instance, Leviton identifies 108 labyrinths (nine types, 12 of each) located at Chichén Itzá, Easter Island, Glastonbury, Sedona and elsewhere. He has counted 1,746 domes, or residences of the gods, and provides an extensive list of stars corresponding to ancient domes on Earth.

The third part, taking up the majority of the book, is "A Geomantic Gazetteer" describing 56 holy sites. Each has a small map identifying the location within a country and covers physical description, history and archaeology, myth and legend, notes from mystics and tourists and geomantic features. Unfortunately no photographs are included, but, if they had been, this would

be just too big a book. Among the sacred places and sites listed are: Abydos, Egypt; Avebury, England; Chaco Canyon, New Mexico, USA; Delphi, Greece; Macchu Picchu, Peru; Mount Kailash, Tibet; Rennes-le-Château, France; Troy, Turkey; Uluru, Australia; and Wu-Tai Shan, or Five Terrace Mountain, in China. Leviton gives advice on how to access the ancient messages and energies of these visionary sites.

Considering the growing interest in spiritual travel and sacred landscapes and structures, Leviton's book fills a special niche.

NOSTRADAMUS AND THE LOST TEMPLAR LEGACY

by Rudy Cambier

Frontier Publishing, Netherlands, and
Adventures Unlimited Press, USA, 2002
ISBN 1-931882-11-8 (188pp tpb)

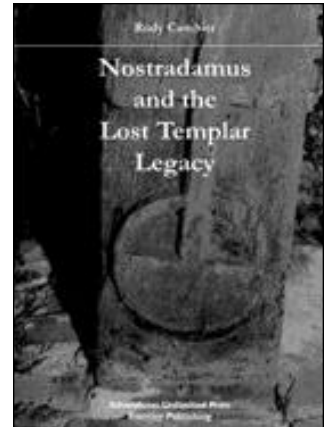
Availability: **Australia/NZ/UK/Europe—**
NEXUS offices; **USA—**Adventures
Unlimited Press, website <http://www.adventuresunlimitedpress.com>

Everything is open to question in these pages, but prophecy-watchers will be stunned by Rudy Cambier's assertion that Nostradamus stole and plagiarised the verses for which he is famous. After a decade of research, Cambier came to the breathtaking conclusion that the 10 *Centuries* could not have been written in the 1550s by Nostradamus, but were in fact penned between 1323 and 1328 by a Cistercian Prior, Yves de Lessions, Abbey of Camron in Hainaut on the French/Belgian border.

The supposed middle-French source just didn't fit a language that looked like Picard, the 14th-century Flanders vernacular. So Cambier embarked on a detective journey to decode the language and uncover the facts.

When he discovered the old monk's writings and twigged to the similarities with the Nostradamus quatrains, he knew he was onto something. But it looked to him as if Nostradamus had been selective in what he borrowed, choosing passages that he judged to have a predictive quality and which he could make use of in the context of his turbulent times. Cambier suggests that Nostradamus misunderstood the prior's misuse of the future tense in telling facts about the past, and thought he'd stumbled across some long-lost prophecies about chaos and cataclysm. These sorts of writings apparently were popular in his time.

But what was the Cistercian monk actually writing about? As Cambier interprets, it was the location of a Templar treasure that hadn't been collected after the Order's demise in 1307. Cambier went in search of it and found significant artefacts and documents. In *Nostradamus and the Lost Templar Legacy*, he challenges "Nostraddicts" to get real and look at the evidence before them.



REVIEWS



BOOKS

Reviewed by Ruth Parnell

THE BUSH DYSLEXICON:

Observations on a National Disorder
by Mark Crispin Miller

W.W. Norton, USA, 2001, 2002 (rev. ed.)
ISBN 0-00-715047-4 (402pp tpb)

If you've ever wondered how competent US President George W. Bush is for arguably the most important job in the "free world", then you don't have to look much further than this book. *The Bush Dyslexicon*, by New York University media professor Mark Crispin Miller, was first released in June 2001, but this new edition contains a large section analysing the post-September 11 presidency.

Professor Miller has produced a well-documented treatise on the the Madness of George Dubya, covering his utterances on a wide range of subjects including religion, the domestic economy, racial issues, abortion, the death penalty, education and literacy, global warming and foreign policy. The expanse covers George W. as Governor of Texas, his presidential campaign and his performance in the highest office of the land. The revelations are at once hilarious and frightening, and it's disturbing to see that the Prez is at his most "lucid" when talking about terrorism. The portraits presented here, with astute commentary from Miller, reveal a man who is seemingly stupid, ignorant and an amnesiac, out of touch with reality, hardly a compassionate man, and in denial of the fact that he won the presidency by default, if not manipulation.

If you've only been exposed to Dubya-isms through 15-second grabs on television, then

you won't have received true reportage of his gaffes. This man needs to be exposed and opposed for his double-speak. For him to say that "The mission of the military is to fight and be able to win war, and therefore prevent war from happening in the first place", helps us understand why the world is under such dire threat from US aggression. A must-read for concerned citizens.

HITLER'S FLYING SAUCERS:

A Guide to German Flying Discs of the Second World War

by Henry Stevens

Adventures Unlimited Press, USA, 2003
ISBN 1-931882-13-4 (269pp tpb)

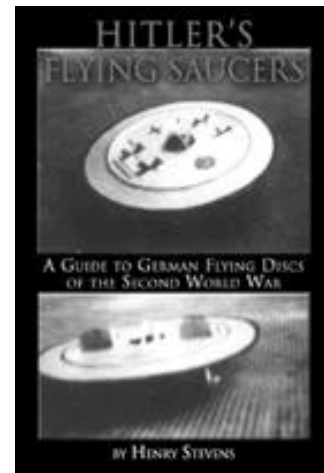
Availability: **Australia/NZ/UK/Europe**—NEXUS offices; **USA**—Adventures Unlimited Press, website <http://www.adventuresunlimitedpress.com>

There's been much speculation in ufological circles that Nazi Germany, during World War II, conducted antigravity experiments and created antigravity craft at places like its Peenemünde facility. It's known that the Nazi powers had anti-aircraft rockets, vortex cannon, infra-red homing devices, electronic devices designed to stop ignition-based engines, sun cannon, magnetically repulsed projectiles and many other exotic weapons under development. So were flying saucers that far out of the question?

As author Henry Stevens argues in *Hitler's Flying Saucers*, the German military would have regarded the classic disc shape—now so ingrained in our ideas about UFOs—as just another design for a new weapon. And with the Germans' tendency towards cutting-edge science and technology, it may not have been such a huge leap for their top sci-

entists to be engaged in highly secretive antigravity and nuclear projects in places hidden from scrutiny. He reminds us that the Nazis took a keen interest in the vortex propulsion engines and disc-shaped craft designed by Austrian inventor Viktor Schauberger. In any case, the fact that many key German scientists were smuggled into the USA after WWII smacks of military-industrial complex vested interest—but the USA was not the only interested party.

Stevens is incredulous that the public's imagination has been so captured by notions of extraterrestrials and alien technology that we can't see that the source of this mystery is Earth-based. Ufologists and contactees alike will be taken aback by his attitude, yet they are advised to keep an open mind regarding his documentation on these early field-propulsion flying-disc projects. Stevens speculates on the origin of "foofighters" and what happened to the technologies after Nazi Germany's defeat.





REVIEWS

BOOKS

Reviewed by Ruth Parnell

THE SCIENTIST, THE MADMAN, THE THIEF AND THEIR LIGHTBULB

by Keith Tutt

Pocket Books, UK, 2003 (first published by Simon & Schuster, UK, 2001, as *The Search for Free Energy*) ISBN 0-7434-4976-2 (360pp tpb)

NEXUS readers may be up on their "free energy" research, but the mainstream media and populace have not had the same sort of exposure to the wealth of ingenuity out there in alternative sci/tech land that could well hold solutions to our inevitable fossil-fuel and nuclear energy crisis.

Fortunately, Keith Tutt, an award-winning journalist in the UK, has had the gumption to take on the field, warts and all. His book—*The Scientist, the Madman, the Thief and the Lightbulb*—is an eminently readable overview highlighting selected geniuses, mavericks and sheer hard-workers who have paved the way for a brighter, cleaner energy future—and some of the charlatans who have served to dull the sheen. Many of the leading lights—Tesla, Moray, Coler—pushed the envelope way ahead of their time, and still others in more recent times—Puthoff, Pons and Fleischmann, Shoulders, Tewari and many more (some sadly not included here)—have expanded the boundaries in theoretical, experimental and practical realms. Many of these groundbreakers—and, in more recent times, even the promoters of their public talks (as former US patent examiner Tom Valone can vouch)—have been on the receiving end of plots and violent actions to ensure their

inventions don't see the light of day.

On the other hand, there have been others like de Palma and Lee who strove for solutions but caused no end of distress to believers and investors alike for not actually coming forth with the promised goods.

Keith Tutt has included lots of working diagrams and patents, but in such a way as not to alienate the newcomer to the field nor bore the professional researcher. He also provides a decent serving of glossary terms, references, appendices (some on cold fusion) and contact details to make this a credible book that is engrossing enough to inspire the reader towards further research.

LOST SECRETS OF THE SACRED ARK: Amazing Revelations of the Incredible Power of Gold

by Laurence Gardner

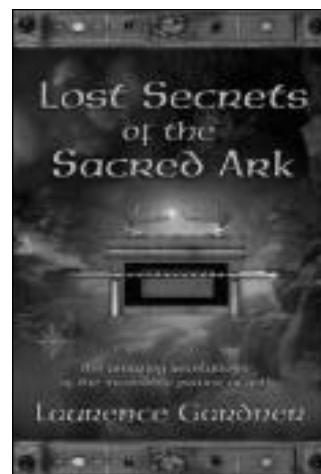
Element/HarperCollins, UK, 2003 ISBN 0-00-714295-1 (399pp hc)

Last issue we published a preview article from Laurence Gardner, drawing on the content of his fourth book, *Lost Secrets of the Sacred Ark*. Long-time readers will appreciate how Gardner's research into the alchemical science of white powder gold dovetails with the groundbreaking work of David Hudson from Phoenix, Arizona, whose findings on the properties of monatomic gold and platinum-group metals we've also covered in these pages.

Gardner gave an overview of the related Starfire of the Sumerians in his second book, *Genesis of the Grail Kings*, but here he concentrates on the Egyptian and particularly Israelite expressions, with a focus on the Paradise Stone—the sacred *manna*—and that famous but little-understood biblical icon, the Ark of the Covenant.

Antigravity researchers and metaphysicians have speculated about the golden Ark's intrinsic power, but what if it were powerful as a function of the very substance it was securing? What if the powerful winged cherubim atop the Ark's lid were allusions to a different kind of flying ability contained therein? From Gardner's evidence it seems that the Ark *did* contain a literal substance with superconductive/levitational properties that modern science is only just beginning to understand. This knowledge has been preserved by keepers of the secrets, including the Knights Templars, the mediaeval alchemists (who referred to the magical substance as the Philosophers' Stone) and the Rosicrucians, and Gardner considers the Ark's current fate in the light of this history.

The rich crimson-and-gold artistic depiction of the Ark and its winged guardians on the book's cover serves as a symbolic portal, inviting the reader to zoom into hitherto secret realms and far-reaching revelations.



REVIEWS



FENCES AND WINDOWS:

Dispatches from the Front Lines of the Globalization Debate

by Naomi Klein

Flamingo/HarperCollins, UK, 2002
ISBN 0-00-715047-4 (283pp tpb)

Canadian journalist Naomi Klein, author of *No Logo*, has spent the last few years travelling the world and visiting hotspots where the "battle" against the forces of globalisation is being played out. *Fences and Windows* is a brilliant collection of her dispatches and speeches from the front lines, commencing with the watershed Seattle World Trade Organization protests in November 1999. Some of these have been published in the *Toronto Globe and Mail* and the London *Guardian*, while others have never before been seen in print.

For the collection's title, Naomi chose the metaphors of "fences", to help us make sense of the barriers put up by globalists and free-trade advocates to keep out the disenfranchised, and "windows", to help us see that the true internationalists seeking truth, justice, freedom and compassion are having a positive impact on the world—despite the attempts of the powers-that-be to criminalise dissent. She takes us to the streets of First World cities where protesters are fenced out of discussion on free trade issues, and to farms where multinational biotech corporations are ensuring that crops become contaminated by GMOs; to Third World cities and villages where the people are being shut out from their livelihoods and where capitalism is taking no responsibility for social and environmental destruction.

Naomi also focuses on Woomera in the Australian outback, where Afghani and Iraqi refugees seeking freedom are being treated

like criminals by the government and its hired thugs who want to deport them to back to a possible war zone.

Naomi's powerful preface sets the tone for these dispatches, challenging America's capitalising on terror and highlighting the possibilities for true freedom and democracy through peaceful, creative action. A gem!

THE TEMPLARS' LEGACY IN MONTREAL, THE NEW JERUSALEM

by Francine Bernier

Frontier Publishing, Netherlands, and
Adventures Unlimited Press, USA, 2002
ISBN 1-931882-14-2 (351pp tpb)

Availability: **Australia/NZ/UK/Europe—**
NEXUS offices; **USA—**Adventures
Unlimited, website <http://www.adventuresunlimitedpress.com>

Francine Bernier set out on a quest in the late 1980s to get to know the esoteric side of her home town, Montréal, in Québec, Canada, and eventually uncovered some of the secrets behind the foundation of this key French city in the New World. She discovered that the island of Montréal had been designed in the 17th century as the New Jerusalem of the Christian world, and that it had become the centre for a group of mystics who wanted to live as part of a flawless Primitive Church of Jesus which could not be tolerated in their old world.

Bernier's research revealed that the elite behind this New World push were members of the Société de Notre-Dame de Montréal, some of whom belonged to an even more exclusive group, the Compagnie du Saint-Sacrement. These mystics were compared to the apostles of Jesus and to the original Templar and Hospitaller soldier-monks of the first Crusades, working as they did for

the greater social good and for an ideal Christian way of living. And as with the ancient Essenes, the men and women of this apostolic sect had gender equality.

They were on a righteous mission to spread their doctrine from the old to the new world, creating a "New France" with Montréal as the promised biblical centre.

Their claims included a link with their patron saint, John the Baptist, with Melchizedek, the king-priest figure important to both the Essenes and Templars, with Stella Maris, the Star of the Sea from Mount Carmel, and with St Blaise, the patron saint of stonemasons as well as a key figure to the Benedictine Order and the Templars.

Coded into the architecture were themes alluding to the Temple of Solomon and the mystery of Rennes-le-Château in France. In decoding Montréal's street names among other key signposts, Bernier enlightens us to a rich secret history, which she supports with solid documentation. As Francine attests, it's remarkable what you can find out about a place you've taken for granted.





REVIEWS

BOOKS

Reviewed by Ruth Parnell

OUR HEALTH AT RISK: What's Going Wrong in our Health System?

by Dr Janice-Ann Priest

Herbal Limited, NZ, 2002

ISBN 0-473-08952-1 (300pp tpb)

Availability: Herbal Ltd, website

<http://www.greenpharmacy.com>

Through her many years' experience first as a nurse and then as a naturopath with her own clinic, as the editor/publisher of *Healthy Options* and *RainbowNews* magazines and as a healthcare activist in New Zealand, Dr Janice-Ann Priest, DSc, NC, Dip.Herb., has seen awareness and the practice of alternative health modalities blossom. But in *Our Health at Risk*, she argues that it's time to "bring modern medicine back to reality" and "make wellness a normal community focus". In so doing, she devotes a substantial part of her book to what's wrong with the so-called "healthcare system", exposing not just the bad big business and politics but the bad science.

There has to be something wrong with a Western medical system where, in the USA alone, 106,000 people die each year from adverse reactions to medication, and 225,000 deaths are the result of iatrogenic causes—the third leading cause of death in that country. There also has to be something wrong when time-tested natural and indigenous herbal treatments are being regulated out of existence in both the developed and developing worlds.

Dr Priest gives the pharmaceutical industry, health regulators and the medical mafia the dressing-down they deserve for the global misery they promote, and rigorously backs up her analyses with reference to published research. She finds it heartening that despite the repressive regimes and regulations our governments try to impose on us, people everywhere are demanding freedom of choice in their healthcare options. Dr Priest urges us on, citing for the record her own run-ins with the authorities through the courts after she opened her Green Pharmacy Centre; seems they didn't like her spelling, and the centre was not a "pharmacy" as such. Remember that most pharmaceutical drugs are synthesised from the plant kingdom, so much of this is about industry and health authority control. Perhaps if a few more people stood up against the orthodox medical/drug industry—as they are now doing against the US-led push for war against Iraq—then the message of the masses might have more impact.

Dr Priest's book is a great reference book to help arm yourself with the truth.

MEDICINE MAN: Healing with the Crypto Power of the Hebrew Word

by Jack Temple

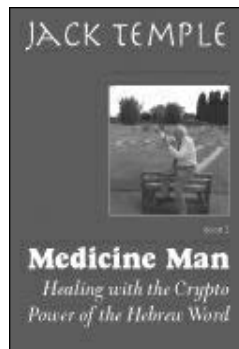
Findhorn Press, UK, 2002

ISBN 1-899171-49-5 (248pp tpb)

Availability: Findhorn Press, website

<http://findhornpress.com>

Having reviewed Jack Temple's first book, *The Healer*, in NEXUS 9/03, I was keen to look into his sequel, *Medicine Man*. I'd recently seen a program featuring him and his diagnoses/treatments, which amazed me (ABC TV's *Compass* in Australia). He discovered that a tree can collect the genetic matrix of an historical person who has been buried at some depth below, and that this genetic essence can be



extracted from the tree and used in a homoeopathic remedy to strengthen a genetic descendent. In his book, he discusses how he accesses genetic heritage as well as age-reversing stem cells, and how he neutralises genetic blocks picked up from a past generation even thousands of years earlier.

Jack Temple, who came to his dowsing-healer role later in life after many years as an organic market gardener, has an impressive success record, as can be seen in the stories from his clients included here. He utilises a specially designed/constructed labyrinth and stone circle outside his clinic in Surrey, England, and traps the energy of specific stars within them—energy that he collects from herbs grown within, which he then uses to make medications to relieve all sorts of ailments, to energise food and to detoxify pollutants, even vaccine toxins.

Recently, Jack has discovered how to enhance his treatments by "Healing with the Crypto Power of the Hebrew Word"—using selected Hebrew quotes from the Old Testament, written around or across a drawn circle. He provides two examples and suggests they each be photocopied eight times and overlaid. For instance, pure water in a glass placed on the circle absorbs specific frequencies; when ingested, this water releases a cascade of healing responses.

Jack Temple's insights and simple advice can help *you* help yourself for the better.

REVIEWS



BOOKS

Reviewed by Ruth Parnell

AWAKENING: How Extraterrestrial Contact Can Transform Your Life by Mary Rodwell

Beyond Publications/Fortune Books, UK, 2002

ISBN 1-903782-03-1 (296pp tpb)

Availability: Beyond Publications, website <http://www.beyondpublications.com>

Quite a few books have now been written about alien contact and abduction experiences in the USA and UK, but here we have accounts from the Antipodes—Western Australia in particular. This book, *Awakening*, is by UK-born Mary Rodwell, a nurse, midwife and health educator who



migrated to Perth in 1991 and set up a private practice nine years or so ago. Her multilayered role as counsellor, metaphysical teacher, intuitive healer, researcher and writer helped equip her for the anomalous experiences that her local clients began to describe to her. A few hundred similar accounts later, and Mary was a key figure in forming the first professional UFO/abduction support group in Australia. ACERN, the Australian Close Encounter Research Network, is a resource network being accessed by Perth locals and individuals as far away as Japan, USA and Europe (visit <http://www.iinet.net.au/~starline>).

Mary has come to understand that UFO/ET experiencers, contactees and abductees—by far the majority of whom are sane, honest people—want to make sense of these strange episodes, but they also need to know how to access help. Often the main coping mechanism is to have a support network of people who have themselves experienced these phenomena—but to have the sympathetic ear of an informed, trained professional obviously works wonders. From Mary's accounts, it seems she's provided a safe space in which numerous individuals have come to terms with inexplicable events in their life and have been reassured of their sanity. Dr Roger Leir, of alien implant analysis fame,

agrees and has provided the foreword for Mary's sensitive exposé.

Mary Rodwell can't be expected to explain the phenomenon, but she helps individuals come up with their own answers to it.

THE CELESTIAL CLOCK: Revealing Sacred Knowledge of the Ancients by Dr William A. Gaspar

Adam & Eva Publishing, USA, 2002

ISBN 0-9678936-0-7 (290pp tpb)

Availability: Adam & Eva Publishing, website <http://www.celestialclock.com>

That the ancients coded into their calendars, art and architecture information about natural cycles and planetary catastrophes was not always so well understood. In the early days of his research, William A. Gaspar, MD, couldn't find much within academia to support his niggling hypotheses about these grand cosmic cycles.

Yet in time, he continued his research into ancient worldviews, exploring the Vedic, Sumerian, Egyptian, Greek, Mayan and Native American cultures and finding complements with the research of modern scientific thinkers like US astrophysicist Dr Paul LaViolette and retired British geologists Drs D. S. Allan and J. B. Delair. These front-running scientists suggest that a global event of catastrophic proportions happened around 11,500 years ago—pointing to, respectively, a Galactic Centre burst or a supernova fragment as the culprit. But was this a one-off event, or do certain cosmic cataclysms come around like clockwork? In *Celestial Clock*, Gaspar argues for the latter, supporting his case with diagrams and published research—with the urging that we be informed so as to be spiritually prepared.

Approximately every 115,000 to 120,000 years we enter another major ice age cycle, corresponding roughly with what's identified as the Milankovitch cycle, with its smaller peaks and troughs. It's a cycle that even looks like a human heartbeat EKG. But from his study of ancient American cosmology, modern astronomy and climatology, Gaspar believes we'll move into another ice age by 2012. Significant in all this is an Earth/Sun/Galactic Centre alignment that occurs around about every 11,500 years and 23,000 years—and which we can expect any time between 2006 and 2012. With the power behind the centre of our galaxy and its vast force, and with the electromagnetic interplay of the planets, the effect of such a grand alignment should be awesome! Gaspar warns us that planetary pole shifts can be timed to the celestial clock.

These are times that will shake us to our very foundation, to our core, and Dr Gaspar in effect reiterates what the ancients have been trying to tell us for ages.



REVIEWS

BOOKS

Reviewed by Ruth Parnell

PLANETS, SUNSPOTS AND EARTHQUAKES: Effects on the Sun, the Earth and its Inhabitants

by Frank Glasby

Writers Club Press/iUniverse, USA, 2002
ISBN 0-595-22641-8 (286pp tpb)
Availability: iUniverse, website
<http://www.iuniverse.com>

Frank Glasby has been exploring the link between seismic/volcanic activity and sunspots since 1964 and has accumulated data for at least three complete solar cycles in that time, not to mention data going back up to 200 years. In the spirit of scientific enquiry, he puts out his hypothesis for comment by fellow researchers in the hope that they will put his ideas to the test and add to the body of knowledge. In the scientific world, this is a commendable move—especially considering that our Sun is still "maxing out" well beyond the usual time cycle.



To start, in *Planets, Sunspots and Earthquakes*, Glasby explains the science of sunspots in an easily understandable way, delineating the vagaries of the 11/22-year cycles. He communicates complex ideas in readily assimilable form throughout, supporting them with graphs and diagrams at the back of the book. (For more information, go to www.darchliterary.iinet.net.au.)

Central to his hypothesis is the notion that the planets—and particular planetary alignments—exert such an electromagnetic effect in the solar system as to stress the Earth's crust, thus resulting in earthquakes and volcanic eruptions and even sunspots, as reflected in the Sun's changing polarities. For sure, the relationship between the core of the Sun and the Earth is significant; but so is the angular relationship between the planets Jupiter and Saturn especially, to a lesser extent between Uranus and Neptune. Closer transiting bodies like Venus and the Moon provide additional triggers.

Glasby elaborates on the basic principles of planetary forces and also discusses bio-

logical relationships. He suggests that planets emanate EM radiation that stimulates the Sun's core and helps cause sunspots, that specific combined planetary gravitational and EM forces spark solar flares, and that the actual locations affected seismically have a lot to do with the tides and the effect of "direct and indirect traction". As the Earth moves in and out of the combined lunar, solar and planetary gravitational fields, seismic faults are stressed, he says.

Frank Glasby doesn't claim to have all the answers, but he presents principles and arguments and even a prediction paradigm which deserve some serious attention by scientists across many disciplines.

PLANET-X, COMETS & EARTH CHANGES

by James M. McCanney

jmccanneyscience.com press, USA, 1980,
2nd printing 2002

ISBN 0-9722186-0-2 (200pp tpb)

Availability: James McCanney website,
<http://www.jmccanneyscience.com>

It's a rather uncanny time to be writing this review, just a few weeks after Comet NEAT, with a tail twice as wide as Jupiter, reached a perihelion that sparked a huge coronal mass ejection from the Sun (or was it the other way round?), and may yet cause red rain and debris to fall through the atmosphere. And when a forecast black dwarf, dubbed "Enigma", is due to whizz past the South Pole with possibly dramatic planetary consequences (see José Chung's article last issue). These are not unlike the scenarios that Professor James McCanney forecast way back in 1980. His book, *Planet-X, Comets & Earth Changes*, was first published then and has been revised several times. I'd say a third of its contents comprises his papers (original page numbering retained) on various cosmic bodies.

The former Cornell physicist is famous for advocating a "plasma ball" as opposed to "dirty snowball" comet theory, and—like so many of his peers who have espoused dissenting scientific views—found himself on the outside of academia. McCanney's multidisciplinary approach, drawing on archaeology, astronomy, nuclear physics, mathematics and historical records, encompasses a broad perspective on the probability of imminent Earth/weather-changing events—one that acknowledges that major cosmic meltdowns come around like clockwork. In a pragmatic final summary, "Will Man Survive?", he draws on basic rules of nature to suggest that: "As a species we have failed... World leaders are out of control..."

I guess it's up to all of us now. Make sure you visit McCanney's website for his latest commentaries on local cosmic events.

REVIEWS



VIDEOS

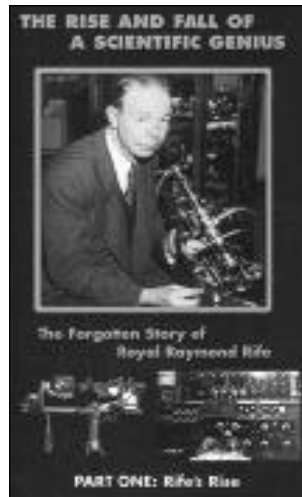
Reviewed by Duncan Roads

THE RISE AND FALL OF A SCIENTIFIC GENIUS: The Forgotten Story of Royal Raymond Rife – Part One: Rife's Rise

Written, produced and directed by Shawn Montgomery, Canada, 2003 (74mins)

Availability: The Rife Research Group of Canada, via website <http://www.zerozerotwo.org/>

It is very difficult to watch a video like this and not come away feeling as if you want everyone you know to see it as well. This is an excellent documentary, and it features some genuine audio recordings of Royal Raymond Rife himself, explaining research and technical details from over 40 years ago.



Whether you are totally new to the story of Rife and his work and the subsequent suppression of his inventions and discoveries, or whether you think you know a lot about the subject, there is plenty for all.

This documentary covers the history of Rife's rise, especially in terms of his super-microscopes of the 1930s, his sponsors and colleagues, his clinical and published research, and his growing successes and discoveries until "crunch time".

Prior to his demise, there was a growing movement towards pleomorphism as a more complete "germ theory". Pleomorphism could be described as the action of one life-form changing into another life-form. According to this line of thought, the medium—i.e., the blood, not the germ—is seen as the agent responsible for disease.

Rife's research showed that changing the pH of the blood resulted in changes in the micro-organisms of the blood, as observed via his microscope. These kinds of "live" observations are not possible with electron

microscopes, and involve resolutions of as high as 31,000X.

Pleomorphism, the Rife Beam Ray and the Rife Universal Microscope all stood to revolutionise medicine with drug-free cures for all infectious diseases—until Dr Thomas Rivers of the Rockefeller Institute stepped in to lead the charge to destroy Rife's work. Drug-free cures were the last thing the growing pharmaceutical companies of the time wanted to compete against.

If you are at all interested in Rife's history and research, or if you want to know more about pleomorphism and super-microscopes, then this is another "must have" video.

CROP CIRCLES – A Silent Knowing

A Nikola Duper film (58mins)

Availability: **UK/Netherlands/Italy**—NEXUS offices; visit <http://www.fsf.nl>

I have a growing collection of crop circle videos and documentaries, but none of them is anything like this one.



Most videos on this topic seek to prove the validity of, and make attempts to explain, the construction mechanisms of crop circles. Footage of mystery lights and close-ups of soil samples and plant nodes breached by microwave-heated water vapour are *not* the mainstay of this production at all.

Instead, the video documents some interesting journeys of personal exploration and experience, focusing on four leading UK-based researchers into the phenomenon: Michael Glickman, Karen Douglas, Steve Alexander and Andy Thomas.

The film takes a most refreshing and rewarding approach to this intriguing subject. It is very well produced and edited, and the music is well suited. Some extra footage of crop circles wouldn't have gone astray, though, I have to say.

After watching this video, I am reminded that the crop circle phenomenon leaves us with only questions, and no answers.



REVIEWS

MUSIC

Reviewed by Richard Giles

SPICE GROOVE

by various artists

Music Mosaic, Australia, 2003 (56mins)
Distributors: **Aust**—New World Music, tel (02) 9565 4522, <http://www.music-mosaic.com>; **Eur/UK**—Silenzio Music, <http://www.silenzio.de/>; **USA**—New Leaf, <http://www.newleaf-dist.com>

This is another in the excellent Music Mosaic collection. The title, *Spice Groove*, gives a clue to the music mix. It has selections from albums of dreamy and spicy world music with *sitar* and *sarod* backed up by vocals, keyboards, guitars, synthesiser, bass and percussion. This is a danceable, rhythmic collection that moves at a slower pace than usual so as to allow full connection to the undulating trance sounds of today's world music. A fine assembly of quieter, groove fusion tracks.

KIN KIN

by Ross Daly & Friends

Ross Daly Music, Aust, 2003 (77mins)
Distributors: **Aust**—Philip Griffin, tel (08) 8267 6149, http://www.geocities.com/rossdalymusic/CD_KinKin.html; **Europe**—Libra Music, Greece, tel +30 (01) 775 7683

Ross Daly, born in England and living in Greece, is a master musician, virtuoso performer and composer who has been studying the music of Eastern Europe and the Near East for years and tours throughout Europe, North America and Australia. Ross is an acclaimed master of several bowed and plucked stringed instruments, including the Cretan *lyra*, Turkish *oud*, Greek *laouto*, Turkish *saz* and Arab *rabab*. This album was recorded in Melbourne on Ross's 2001 Australian tour, and performers include locals Tunji Beier and Linsey Pollak. Traditional songs plus Ross's unique compositions make this a must-have album for lovers of Middle and Near Eastern music.

BREATHING SPACE

by Jeff Clarkson

Evergreen, New Zealand, 2002 (56mins)
Distributor: **New Zealand**—Gateway Music, tel +64 (0)2 9565 4522, website <http://www.jeffclarkson.com>

New Zealander Jeff Clarkson has had a number of successes on the ambient music scene since his first release, *Butterfly*, in 1987. On his ninth album, *Breathing Space*, he uses a "breathasizer"—a combination keyboard, guitar and wind instrument. With it he can control the shape of the sound

of his voice, and pitch and modulation with his hands. The breathasizer becomes a vocalisation, conveying emotion. His album has a loosening ambience that crosses into a new field of relaxation music.

AN AFRO-PORTUGUESE ODYSSEY

by various artists

Putumayo, USA, 2002 (57mins)
Distributors: **Aust**—MRA, tel (07) 3849 6020; **UK**—Pinnacle Imports, tel 01689 870622; **USA**—Putumayo, tel 1888 7888 8629, <http://www.putumayo.com>

This Putumayo release is a musical journey through former Portuguese colonies in Africa. These countries have been wracked by violence and strife, so most of the artists live and perform outside their homelands. The featured sounds are from Paulo Flores and Ruy Mingas of Angola, Eneida Marta, Dulce Neves, Bidinte and Manecas Costa of Guinea-Bissau, Mabulu of Mozambique, the Mendes Brothers, Jovino dos Santos and Augusto Cego of Cape Verde, and more. Pleasant, boppy music for those laid-back afternoons on the verandah.

RHYTHMS OF BAGHDAD

by Ahmed Mukhtar & Sattar Al-Saadi

ARC Music, UK, 2002 (65mins)
Distributor: ARC Music, tel +44 (0)1342 328567, <http://www.arcmusic.co.uk/>

This music is from one of the world's oldest civilisations. Ahmed Mukhtar and Sattar Al-Saadi live outside Iraq—a reflection on the situation in their home country—but have collected traditional music from older-style Baghdad ancestral musical lines. Ahmed performs on the *oud* (pear-shaped, short lute), and Sattar is a percussionist, using the *tabla*, *riqq*, *khishba*, *tar* and other drums, and also plays the *nay* (Arab reed flute). An album of homage to Iraq's ancient traditions—which we pray won't be bombed into oblivion in the future.



Continued from page 16

Bush's company, Arbusto. It was never revealed whether he was investing his own money or somebody else's. There was even speculation that the money might have been from Salem. In the same year, Mr Bath bought Houston Gulf Airport on behalf of the Saudi Arabian multimillionaire.

Three years ago, Mr Bush said the \$50,000 investment in Arbusto was the only financial dealing he had with Mr Bath.

The connection between the bin Ladens and the Bush family does not end with Arbusto Energy.

On the BBC's *Newsnight* program, Greg Palast stated (p. 5):

Young George also received fees as director of a subsidiary of Carlyle Corporation, a little-known private company which has, in just a few years of its founding, become one of America's biggest defence contractors. His father, Bush Senior, is also a paid adviser. And what became embarrassing was the revelation that the bin Ladens held a stake in Carlyle, sold just after September 11.

These business connections may explain why the Bush Administration frustrated the FBI's efforts to investigate Abdullah and

Omar bin Laden. Investigations may have demonstrated that Osama was not the "black sheep" of the family. Instead, they may have shown that terrorism was actually the bin Laden family business. This would have associated the Bush family with terrorists, something the current President could not allow to happen.

For neo-conservatives, the portrait of the Bush family as a criminal syndicate with ties to questionable characters is reprehensible. However, this contention can be based upon a major precedent.

Webster Tarpley and Anton Chaitkin's investigation into former President George Herbert Walker Bush's background led to a startling discovery: that "The President's family fortune was largely a result of the Hitler project" (p. 28).

The Bush dynasty's connections with the bin Ladens suggest that the family's collusion with enemies of the United States has never ceased.

A State-sponsored Sociopolitical Project

Re-examining Martín-Baró's previous contention, that terrorism is part and parcel of a "government-imposed sociopolitical project", one is faced with some very dis-

turbing questions.

What will be the results of this "government-imposed sociopolitical project"? Where exactly is all of this state-sponsored terrorism leading?

Quigley provides a fragmentary glimpse of the outcome in *Tragedy and Hope*. The Oxford professor reveals that a cognitive elite, arbitrarily dubbed "experts", "will replace the democratic voter in control of the political system" (p. 866).

With representation for the masses removed from the picture, what kind of life can the common man expect to live? Quigley (p. 886) declares that this will be a system where the individual's:

...freedom and choice will be controlled within very narrow alternatives by the fact that he will be numbered from birth and followed, as a number, through his educational training, his required military or other public service, his tax contributions, his health and medical requirements, and his final retirement and death benefits.

There you have it. George Orwell's *1984*, built al-Qa'ida style!

The Hidden Face of Terrorism

References

- Adler, Freda, Gerhard Mueller, William Laufer, *Criminology*, McGraw Hill, New York, 2001.
- Allen, Peter, "Bin Laden's family link to Bush", 2001, http://www.infowars.com/saved%20pages/Prior_Knowledge/fa...
- Bamford, James, *Body of Secrets: Anatomy of the Ultra-Secret National Security Agency*, Doubleday, 2001.
- Blum, Bill (translator), "Interview with Zbigniew Brzezinski", January 15–21, 1998, <http://groups.yahoo.com/group/konformist/message/2429>.
- Brzezinski, Zbigniew, *The Grand Chessboard: American Primacy and Geostrategic Objectives*, Basic Books, 1997.
- Chomsky, Noam, *Deterring Democracy*, Hill & Wang, New York, 1992.
- Cuddy, Dennis, *Secret Records Revealed: The Men, The Money, and The Methods Behind the New World Order*, Hearststone Publishing, Oklahoma, 1999.
- DeCamp, John W., *The Franklin Cover-Up: Child Abuse, Satanism, and Murder in Nebraska*, AWT Inc., Nebraska, 1996.
- Greider, William, *Secrets of the Temple: How the Federal Reserves Runs the Country*, Simon & Schuster, New York, 1987.
- Juergensmeyer, Mark, "Understanding the New Terrorism", *Current History*, April 2000.
- Ijaz, Mansoor, "Clinton Let Bin Laden Slip Away and Metastazise", December 5, 2001, <http://www.latimes.com/templates/misc/printstory.jsp?=-1a%2D000096561dec05>.
- Keller, Suzanne, *Beyond The Ruling Class: Strategic Elites In Modern Society*, Random House, New York, 1963.
- Kick, Russ, "September 11, 2001: No Surprise", 2002, <http://www.loompanics.com/Articles/September11.htm>.
- Levine, Michael and Laura Kavanau, *The Triangle of Death*, Delacorte Press, New York, 1996.
- McGee, Jim, "An Intelligence Giant in the Making", November 4, 2001, <http://www.washing-tonpost.com/wp-dyn/articles/A33340-2001Nov3.html?id=6846>.
- Mills, C. Wright, *The Power Elite*, Oxford University Press, London/New York, 1956.
- Moran, Michael, "Bin Laden comes home to roost", <http://www.msnbc.com/news/190144.asp?cp1=1>, 2001.
- Palast, Gregory, "Has someone been sitting on the FBI?" 2001, http://news.bbc.co.uk/1/hi/english/events/newsnight/newsid_1645000/1645527.stm.
- Pouzzner, Daniel, *The Architecture of Modern Political Power: The New Feudalism*, 2001, <http://www.mega.nu:8080>.
- Quigley, Carroll, *Tragedy and Hope: A History of the World in Our Time*, MacMillan Company, New York, 1966.
- Rivero, Michael, "Fake Terror: The Road to Dictatorship", 2001, <http://www.whatreallyhappened.com/ARTICLE5/index.html>.
- Shackley, Theodore, *The Third Option: An Expert's Provocative Report on an American View of Counterinsurgency Operations*, Dell Publishing, New York, 1981.
- Stephens, Joe and David B. Ottaway, "From the USA, the ABCs of jihad", <http://stacks.msnbc.com/news/728439.asp>, 2002.
- Tarpley, Webster Griffin and Anton Chaitkin, *George Bush: The Unauthorized Biography*, Executive Intelligence Review, Washington, DC, 1992.
- *The Times of India*, "CIA worked in tandem with Pak to create Taliban", March 7, 2001, http://www.infowars.com/Saved_Articles/7%20March%202001%20%20CIA%20worked...

About the Author:

Paul D. Collins has studied suppressed history and the shadowy undercurrents of world political dynamics for roughly eleven years. In 1999, he completed his Associate of Arts and Science degree. He will soon complete his Bachelor's degree, with a major in Communications and a minor in Political Science.

Paul's book, *The Hidden Face of Terrorism: The Dark Side of Social Engineering, From Antiquity to September 11*, is available online from www.1stbooks.com/bookview/13401, <http://www.barnesandnoble.com>, and also <http://www.amazon.com>. It can be purchased as an e-book (ISBN 1-4033-6798-1) or in paperback format (ISBN 1-4033-6799-X).

Endnotes

1. Quotes in Niall Ferguson, *The House of Rothschild: Money's Prophets, 1798-1848*, Penguin Books, 2000, pp. 231-232.
2. Peter Krass, *Carnegie*, John Wiley & Sons, 2002, pp. 242, 410-411.
3. Gary Allen, *The Rockefeller File*, '76 Press, 1976, p. 77; and David Icke, *The Biggest Secret*, Bridge of Love, 1999, pp. 1-2, 267-268.
4. The literature on both these interpretations is considerable. For recent examples of the "corporate-led globalisation" theory, see: David Korten, *When Corporations Rule the World*, Kumarian Press, 1995; Naomi Klein, *No Logo*, Flamingo, 2000; Paul Hellyer, *Stop Think*, Chimo Media, 1999; and Anita Roddick (ed.), *Take It Personally: how globalization affects you - and powerful ways to challenge it*, HarperCollins, 2001. For classic and recent examples of the "socialist one-world government" theory, see: Gary Allen, *None Dare Call It Conspiracy*, Concord Press, 1972; James Perloff, *The Shadows of Power*, Western Islands, 1988; William F. Jasper, *Global Tyranny... Step By Step*, Western Islands, 1992; Gary Benoit, "Globalism's Growing Grasp", *The New American*, February 28, 2000; and William F. Jasper, "Global Tyranny... Bloc by Bloc", *The New American*, April 9, 2001.
5. For recent examples of this combined agenda, complete with obligatory rhetoric on protecting democracy, see: The Commission on Global Governance, *Our Global Neighbourhood*, Oxford University Press, 1995; George Soros, *Open Society: Reforming Global Capitalism*, Little, Brown & Co., 2000; and Peter Singer, *One World: The Ethics of Globalization*, Text Publishing, 2002.
6. Rockefeller and Carnegie quoted in Ron Chernow, *Titan: The Life of John D. Rockefeller, Sr.*, Warner Books, 1998, pp. 467, 313-314, 469.
7. *ibid.*, pp. 468, 566.
8. *ibid.*, p. 638.
9. Raymond B. Fosdick, "Personal Recollections of Woodrow Wilson", in Earl Latham (ed.), *The Philosophy and Policies of Woodrow Wilson*, University of Chicago Press, 1958, pp. 28-29. Note that Fosdick was also a trustee of all the philanthropic boards created by John D. Rockefeller, Jr, including The Rockefeller Institute for Medical Research, the General Education Board, the International Education Board, The Laura Spelman Rockefeller Memorial, the China Medical Board and the Spelman Fund of New York.
10. Arthur S. Link, *Wilson: The Road to the White House*, Princeton University Press, 1947, p. 479; Fosdick, "Personal Recollections", pp. 29, 35, 39-41; and Raymond B. Fosdick, *Chronicle of a Generation: An Autobiography*, Harper & Brothers Publishers, 1958, pp. 188-189, 195-196.
11. Fosdick, *Chronicle of a Generation*, pp. 204, 211.
12. Wilson quoted in Thomas J. Knock, *To End All Wars: Woodrow Wilson and the Quest for a New World Order*, Princeton University Press, 1992, pp. 98, 112; Henry Kissinger, *Diplomacy*, Touchstone, 1994, p. 234.
13. Link, *Wilson: The Road to the White House*, p. 24; and Wilson quoted in Ross A. Kennedy, "Woodrow Wilson, World War I, and an American Conception of National Security", *Diplomatic History*, Winter 2001, p. 23.
14. House quoted in Charles Seymour (ed.), *The Intimate Papers of Colonel House*, vol. 1, Ernest Benn Ltd, 1926, p. 215.
15. Wilson quoted in Knock, *To End All Wars*, p. 112.
16. Link, *Wilson: The Road to the White House*, pp. 524-525, 490, 403, 485; Wilson quoted in Lester V. Chandler, "Wilson's Monetary Reform", in Latham, *Woodrow Wilson*, p. 126, and J. Lawrence Broz, "Origins of the Federal Reserve System: International Incentives and the Domestic Free-Rider Problem", Harvard University, May 1998, pp. 27-34.
17. Gene Smith, *When The Cheering Stopped: The Last Years of Woodrow Wilson*, Bantam Books, 1964, pp. 230-231 (emphasis added).
18. Quoted in Fosdick, *Chronicle of a Generation*, pp. 215-216, 224-225, 227.
19. *ibid.*, pp. 215-216; Raymond B. Fosdick, *John D. Rockefeller, Jr: A Portrait*, Harper & Brothers Publishers, 1956, pp. 205-207.
20. Fosdick, *John D. Rockefeller, Jr.*, pp. 388-90; and John Ensor Harr and Peter J. Johnson, *The Rockefeller Century*, Charles Scribner's Sons, 1988, pp. 155-156.
21. Rockefeller quoted in Fosdick, *John D. Rockefeller, Jr.*, pp. 390-394; Harr & Johnson, *The Rockefeller Century*, p. 156; and "The Library Benefactor: John D. Rockefeller, Jr.", at UNOG Library website <http://www.unog.ch>.
22. Rockefeller quoted in Fosdick, *John D. Rockefeller, Jr.*, pp. 397-398 (emphasis added).
23. Peter Collier and David Horowitz, *The Rockefellers: An American Dynasty*, Holt Reinhart & Winston, 1976, pp. 486-487.

Continued from page 47

the nine strongest solar proton events of the past Solar Cycle 22 and high-energy electrons emitted periodically from co-rotating interaction regions in the solar wind during 1994–95. The variation of the SR parameters is in qualitative agreement with current SR theories. The study also showed that high-energy particle precipitation (solar ejecta) is not the only relevant source affecting SR parameters. The findings constitute a so far little-explored aspect of solar/terrestrial interaction.

FACILITATING OUR POTENTIAL

In conclusion, we postulate that: (1) we are complex electrodynamic, rather than merely chemical beings, sensitive to natural and artificial EM fields; (2) SR frequencies coincide with human brain waves, affecting subtle and gross brain-wave generation, regulating homeostasis, healing and psi; (3) there is strong correlation between human behavioural disturbance and geomagnetic field turbulence or isolation from SR frequencies.

As human beings we have extraordinary potentials we have hardly begun to study,

much less understand. Creative gifts, intuitions and talents that are unpredictable or emergent may become stabilised in generations to come. Hopefully, we can learn to understand both our emergence from an essentially electromagnetic environment and facilitate our potential for healing, growth and non-local communication.

About the Authors:

• **Richard Alan Miller** started his professional career as a physicist, biophysicist and instrumentation specialist. In late 1972 he began his foray into parapsychics with experiments in Kirlian photography and developed a field theory to explain the phenomenon. He is an expert in growing and marketing botanicals, and set up his own company, Northwest Botanicals. Visit <http://www.nwbotanicals.org> for a listing of his writings on subjects as diverse as metaphysics, parapsychology and alternative agriculture. He is currently writing a book on ESP self-induction. Richard is available for lectures and as an outside consultant. He can be contacted at OAK Publishing, Inc., 122 SW 5th Street, Grants Pass, OR 97526, USA; telephone +1 (541) 476 5588, fax +1 (541) 476 1823, email DrRam@magick.net.

• **Iona Miller** is a multimedia artist, hypnotherapist, web author and researcher who works

through the Asklepia Foundation (<http://www.asklepia.org>), *Chaosophy Journal* and *JNLRFMI* on the relationship between experiential journeys, physics, healing, creativity, dreams, consciousness and chaos theory. She has been collaborating with Richard Alan Miller since the mid-1970s; although they divorced in 1994, they continue to work together on leading-edge studies into consciousness, neurotheology, Qabalah, alchemy and the nature of reality. Email Iona at iona_m@yahoo.com, and visit her homepage at <http://www.geocities.com/ionam/>.

Notes and References

- The authors give special thanks to Betty Daly-King of Western Australia for getting them started on the completion of Lewis B. Hainsworth's original works on this subject.
- Two background papers by Hainsworth are appended to the article "On the Possible Effects of Changes in Schumann's Resonances on Human Psychobiology" at website <http://www.nwbotanicals.org>. Appendix 1: The Effect of Geophysical Phenomena on Human Health (first published in *Speculations in Science and Technology*, vol. 6, no. 5, December 1983); Appendix 2: Electrical Technology and Human Evolution (*Speculations in Science and Technology*, vol. 11, no. 2, 1987)
- Additional references for this article can be found at <http://www.nwbotanicals.org>.